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Cerrahi Hemşirelerin Aşılanma Durumlarının COVİD-19 ve Ölüm Korkusuna Etkisi

The Effect of Vaccination Status of Surgical Nurses on COVID-19 and Fear of Death

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ÖZ

Amaç: Bu araştırmanın amacı, cerrahi kliniklerde çalışan hemşirelerin aşılanma durumlarının Covid-19 ve ölüm korkusuna etkisini incelemekti.

Yöntemler: Tanımlayıcı türdeki bu çalışma, Nisan 2021-Kasım 2021 tarihleri arasında Erzurum ilinde bir üniversite araştırma hastanesi ve bir bölge eğitim ve araştırma hastanesinin cerrahi kliniklerinde görev yapan 110 hemşire ile gerçekleştirildi. Verilerin toplanmasında "Sağlık Çalışanı Tanıtıcı Bilgi Formu", "Covid-19 Korkusu Ölçeği" ve "Tanatofobi Ölçeği" ile toplandı.

Bulgular: Aşı olan hemşirelerin Covid-19 Korkusu Ölçeği puan ortalamaları 17,90 ± 6,102, aşı olmayan hemşirelerin 17,24 ± 6,13 olarak bulundu. Aşı olan hemşirelerin Tanatofobi Ölçeği puan ortalamaları 16,88 ± 5,10, aşı olmayan hemşirelerin 16,84 ± 4,28 olduğu belirlendi. Hemşirelerin aşılanma durumları ile Covid-19 korkusu ve Tanatofobi ölçeklerinden aldıkları puan ortalamaları arasında istatistiksel anlamlılık oluşturacak bir fark olmadığı saptandı (P>,05). Aşı olmayan hemşirelerin Tanatofobi Ölçeği ile Covid-19 Korkusu Ölçeği toplam puan ortalamaları arasında pozitif yönde ileri derecede anlamlı bir ilişki olduğu belirlendi (P<,001). Aşı olan hemşirelerin sadece çalışılan klinikteki eleman sayısı ile aşı olmayan hemşirelerin ise eğitim durumları ve çalışılan klinikteki eleman sayısı ile Tanatofobi Ölçeği puan ortalamaları arasındaki farkın istatistiksel olarak önemli olduğu tespit edildi (P<,05).

Sonuç: Cerrahi klinikte çalışan hemşirelerin aşılanma durumlarının Covid-19 ve ölüm korkusu üzerinde anlamlı farklılık oluşturmadığı ancak aşı olmayan hemşirelerin Covid-19 korkuları artıkça ölüm korkularının arttığı görüldü. Çalışılan klinikteki hemşire sayısının yetersiz veya kısmen yeterli olmasının da ölüm korkusunu artırdığı belirlendi.

Anahtar Kelimeler: Covid-19 aşısı, covid-19 korkusu, hemşire, ölüm korkusu

ABSTRACT

Objective: The aim of this study was to examine the effect of vaccination of nurses working in surgical clinics on Covid-19 and the fear of death.

Methods: This descriptive study was conducted with 110 nurses working in the surgical clinics of a university research hospital and a regional training and research hospital in Erzurum province between April 2021 and November 2021. In the collection of data, "Health Worker Identification Information Form", "Covid-19 Fear Scale" and "Thanatophobia Scale" were collected.

Results: The mean score of the Covid-19 Fear Scale of the vaccinated nurses was 17.90 ± 6.102 and the unvaccinated nurses were 17.24 ± 6.13. The mean scores of the vaccinated nurses on the Thanatophobia Scale were 16.88 ± 5.10 and the unvaccinated nurses were 16.84 ± 4.28. It was found that there was no statistically significant difference between the vaccination status of the nurses and the mean scores they received from the Covid-19 fear and Thanatophobia scales (*P*>.05). It was determined that there was a significant positive relationship between the total score averages of the Thanatophobia Scale and the Covid-19 Fear Scale of unvaccinated nurses (*P*<.001). It was found that the difference between the number of staff in the clinic of the vaccinated nurses and the educational status of the unvaccinated nurses and the number of staff in the clinic studied and the mean scores of the Thanatophobia Scale were statistically significant (*P*<.05).

Conclusion: It was seen that the vaccination status of the nurses working in the surgical clinic did not make a significant difference on Covid-19 and the fear of death, but as the Covid-19 fears of unvaccinated nurses increased, the fear of death increased. It was determined that the insufficient or partially sufficient number of nurses in the clinic also increased the fear of death.

Keywords: Covid-19 vaccine, fear of covid-19, nurse, fear of death

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GİRİŞ

Koronavirüs ilk olarak Aralık 2019 yılında Çin Halk Cumhuriyeti'nde daha sonrasında tüm dünyada yaygın olarak görülen şiddetli solunum yolu hastalığına sebep olan bir hastalıktır.[1,2] Covid-19 bazı insanlarda asemptomatik, bazılarında da hafif, ağır veya ölümcül sebeplere yol açtığından Dünya Sağlık Örgütü tarafından pandemi olarak ilan edilmiştir.[3] Covid-19 pandemisinden en çok etkilenen grup ise sağlık çalışanları olmuştur. Sağlık çalışanları arasında, hastalarla en sık bir araya gelmek zorunda kalan grup ise hemşirelerdir. Dolayısı ile hemşireler Covid-19 pandemisinden ciddi şekilde etkilenmiştir.[4]

Covid-19, uzun çalışma saatleri, çalışma esnasında kullanılması zorunlu tutulan ekipmanlar, virüsün bulaş riskinin yüksek olması, çalışma arkadaşlarının kaybına şahit olma gibi pek çok sebep ile hemşireler üzerinde ciddi psikososyal bozukluğa yol açmıştır.[5] Yaşanılan bu olumsuzluklar içerisinde ise bireylerde; korku, anksiyete bozukluğu, depresyon, tükenmişlik, ölüm korkusu olduğu ifade edilmiştir.[6,7] Cerrahi kliniklerde görev yapan hemşireler diğer birimlerde çalışmakta olan hemşirelere nazaran daha fazla hasta kaybıyla karşı karşıya kalmaktadır. Bunun sebeplerinden birisi pandemi süresince diğer kliniklerdeki hasta bakımlarının ve elektif ameliyatların ertelenmiş olup yalnızca aciliyet içeren ve onkoloji hastalarının ameliyatlarına izinler verilmesi,[8] bu ameliyatların aciliyetleri nedeni ile hastaların Covid-19 pozitif olup olmadığını tanılanmasını güçleştirmiştir.[9] Cerrahi kliniklerdeki hasta müdahalelerinin ve kayıplarının devamı ise hasta ile bire bir etkileşim içinde olan cerrahi klinik hemşirelerinde anksiyete ve ölüm korkusu oluşturmuştur. Hasta kayıplarıyla bu denli sık karşılaşmakta olan bireylerin farklı endişelere, düşünce ve duygulara sahip olmaları ise kaçınılmaz bir durumdur.[10] Ölüm korkusu pek çok insanda var olan bir korku olmanın yanında oldukça güçlü bir korku olduğundan diğer bütün korkulardan kolay bir şekilde ayrılmaktadır. Ölüm sürecinde olan hasta ve hasta yakınlarına bakım vermeye çalışan hemşireler suçluluk, ümitsizlik, öfke, keder, anksiyete ve korku gibi pek çok duygu yaşamakta ve bu duyguların yanı sıra hasta bakımında yetersiz kalmaktan korkmaktadır.[11]

Tanatofobi, yoğun bir şekilde hissedilen ölüm veya ölme korkusudur. Covid-19 pandemisinin çok fazla kişide korku uyandırdığı bilinmekle beraber meydana gelen korku durumunun değerlendirilmesi, meydana gelebilecek psikolojik sorunların engellenebilmesi adına oldukça önemli bir durumdur. Covid-19 sonucunda hastalığın ağır seyri ve ölüm korkusunun oldukça yoğun olması beraberinde Covid-19 korkusuna bağlı gelişen ölüm korkusunu getirmektedir. Hastalarla direkt olarak temas halinde olan hemşirelerin Covid-19 korkusunun ve tanatofobi (ölüm korkusu) durumlarının belirlenmesi, korku yönetimi ve psikolojik refahın sürdürülebilir bir hal alması için oldukça önemlidir.[12] Genel olarak pek çok insan ölmekten ya da ölümle ilgili deneyimlerden korkmaktadır. Ancak bu korku bireyin günlük hayatını etkileyecek boyuta geldiğinde psikolojik bir rahatsızlık olarak değerlendirilmektedir.[13] Tanatofobi bulunan bireylerde ortaya çıkan en yaygın belirtiler ise, panik atak, artan kaygı seviyesi, baş dönmesi, terleme, kalp çarpıntısı, mide bulantısı, karın ağrısı gibi fiziksel semptomlardır.[14]

Covid-19 virüsünün genel olarak yakın temas ile bulaşıyor olması sağlık çalışanlarında ölüm korkusunu arttırmaktadır.[12] Özellikle hemşirelerin hastalarla birebir etkileşimde bulunması beraberinde ölüm korkusunun artmasına sebebiyet vermektedir. Sağlık alanında yaşanan gelişmelerle birlikte gerçekleştirilen aşılanma durumu ise bir noktaya kadar rahatlama sağlasa da tam olarak ölüm korkusunun ortadan kalkmasına yardımcı olmamaktadır. Bu noktada hemşirelerin aşı durumunun ölüm korkusu üzerinde nasıl bir etkisinin olduğunun belirlenmesi ve gereken psikolojik ve fizyolojik desteğin sağlanması, onlara büyük bir katkı sağlayacaktır.[15] Hemşirelerin ölüme karşı sergiledikleri tutum onların empatik kaygılarını, verdikleri bakımın kalitesini, hastaların ölmesi gibi işe dair stresörlerle baş etme şekillerini etkilemektedir. Hemşireler, ölüme yakın olan hastalara bakım verme konusunda olumlu niyetlere sahipken ölüme dair korkularının artması oldukça olağan bir durum olmaktadır. Ancak bu korkunun doğru analiz edilmesi ve buna bağlı olarak baş etme tekniklerinin de geliştirilmesi gerekmektedir.

AMAÇ

Çalışma cerrahi kliniklerde çalışan hemşirelerin aşı durumlarının Covid-19 ve ölüm korkusuna etkisinin belirlenmesi amacı ile gerçekleştirildi.

Araştırma Soruları

Araştırmanın amaçları doğrultusunda soruları;

1. Cerrahi kliniklerde çalışan hemşirelerin aşı durumları ölüm korkusunu etkilemekte midir?
2. Cerrahi kliniklerde çalışan hemşirelerin aşı durumları Covid-19 korkusunu etkilemekte midir?

YÖNTEMLER

Araştırmanın Türü

Çalışma Covid-19 pandemisi sürecinde cerrahi kliniklerde çalışan hemşirelerin aşılanma durumlarının Covid-19 ve ölüm korkusuna etkisinin belirlenmesi amacıyla tanımlayıcı türde yapıldı.

Araştırmanın Yapıldığı Yer ve Zaman

Araştırma, Nisan 2021- Kasım 2021 tarihleri arasında Erzurum ilinde bulunan bir Araştırma Hastanesi ve bir Bölge Eğitim ve Araştırma Hastanesi cerrahi kliniklerinde görev yapan hemşirelerle gerçekleştirildi.

Araştırmanın Evreni ve Örneklemi

Araştırmanın evrenini Nisan 2021- Kasım 2021 tarihleri arasında Erzurum ilinde bulunan bir Araştırma Hastanesi ve bir Bölge Eğitim ve Araştırma Hastanesi cerrahi kliniklerinde görev yapan hemşireler, örneklemi ise belirtilen cerrahi kliniklerde çalışan ve araştırmaya katılmayı kabul eden hemşireler oluşturdu. Cerrahi kliniklerde çalışan hemşirelerin tamamının çalışmaya katılmaması sebebiyle toplam 110 (evrenin yaklaşık %62'sine ulaşıldı) hemşire ile çalışma tamamlandı.

Veri Toplama Araçları

Sağlık Çalışanı Tanıtıcı Bilgi Formu: Sağlık çalışanı tanıtıcı bilgi formunda, toplam 11 soru (yaş, cinsiyet, medeni durum, eğitim durumu, çalışma yılı, çalışılan klinikteki eleman sayısı, mesleği severek yapma durumu, çalışma koşullarından memnun olma durumu, Covid-19 şüphesi olan hastayla karşılaşma durumu, Covid-19 şüphesi olan hastaya izolasyon uygulama durumu, Covid-19 geçirme durumu) yer almaktadır.

Covid-19 Korkusu Ölçeği: Covid-19 Korkusu Ölçeği, 2020 yılında Ahorsu ve ark. [16] tarafından geliştirilmiş bir ölçektir. Ölçek 2020 yılında Artan ve ark. [17] tarafından Türkçeye uyarlanmıştır. Tek bir boyutta toplanmış olan 7 maddeden oluşmuştur. Ölçekte var olan her bir madde 5'li likert tip şeklinde tasarlanmıştır. Tüm maddeler için '1-Kesinlikle Katılıyorum' ve '5-Kesinlikle Katılmıyorum' aralığında işaretlemeler yapılması beklenmektedir. Ölçekte var olan puanlar katılımcıların Covid-19 ile alakalı korku seviyesini belirtmektedir. Puan arttıkça korku seviyelerinin yüksek olduğu şeklinde yorumlanmaktadır. Orijinal ölçeğin Cronbach Alfa değeri tutarlılık katsayısı 0,82 bulunmuştur. Bu çalışmada kullanılan ölçeğin Cronbach alfa değeri ise 0,85 olarak bulundu.

Tanatofobi Ölçeği: Sağlık çalışanlarında bulunan ölüm korkusunun değerlendirilmesi amacıyla 1998 yılında geliştirilmiş ölçek Çiftçioğlu ve Harmancı Seren[19] tarafından 2019 yılında Türkçe'ye uyarlanmıştır. Ölçekte toplamda yedi madde bulunmakla birlikte ölçek maddelerine verilmesi planlanan tepkiler 4 dereceli likert tipte olmaktadır. Maddeler '1-Uygun değil' '4-Çok uygun' şeklinde puanlanmaktadır. Ölçekten alınacak toplam puan en düşük 7, en yüksek 49 arasında değişmekte olup alınan ortalama puan arttıkça kişinin ölüm korkusunun arttığı şeklinde değerlendirilmekte ve yorumlanmaktadır. Orijinal ölçeğin Cronbach alfa katsayısı 0,85 olarak bulunmuştur. Bu çalışmada kullanılan ölçeğin Cronbach alfa değeri ise 0,83 olarak bulundu.

Verilerin Toplanması

Araştırma verileri toplandığı sürede Covid-19 pandemisinin güncelliğini koruması nedeni ile verilerin toplandığı hastanelerde cerrahi birim sorumlularına ulaşılarak öncelikle bilgilendirme yapılıp ardından veriler online olarak toplandı. Bu doğrultuda ''Google Documents'' aracılığı ile hazırlanan ulaşılabilir bir link (https://docs.google.com/forms/d/171UcFFkOquQMJruhDPBcPITlK4nkuSZDE03lFan8EE/edit?chromeless=1) ile online veri toplama linki oluşturuldu. Farklı iletişim kanalları aracılığıyla (e-mail, instagram, whatsapp vb.) katılımcıların listesi belirlenerek araştırma formlarına ulaşması sağlandı. Günümüzde internetin giderek artan rolü birçok alanda olduğu gibi araştırma sürecinde birincil kaynaklardan veri toplama aşamasında bazı dezavantajlarına rağmen avantajlarının fazla olması nedeni ile önem kazandığından veri toplamada bu yol tercih edildi.

Araştırmanın Değişkenleri

Bağımlı Değişkenler

Covid-19 korkusu ölçeği ve tanatofobi ölçeği puan ortalamaları.

Bağımsız Değişkenler

Tanıtıcı özellikler (yaş, cinsiyet, medeni durum, eğitim durumu, çalışma yılı, çalışılan klinikteki elaman sayısı, mesleği severek yapma durumu, çalışma koşullarından memnun olma durumu, Covid-19 şüphesi olan hastayla karşılaşma durumu, Covid-19 şüphesi olan hastaya izolasyon uygulama durumu, Covid-19 olma durumu)

Verilerin Değerlendirilmesi

Araştırma verilerin değerlendirilmesi bilgisayar ortamında SPSS 23 (Statictical Packagefor Social Science) paket programında gerçekleştirildi. Verilerin değerlendirilmesinde; sayı, ortalama, yüzdelik dağılımlar, varyans analizi, korelasyon, Kruskal Wallis, Mann Whitney U, X^2 testi, bağımsız gruplarda t testi ve Tukey ileri analiz yöntemi kullanıldı. Gruplar arasında var olan farklılığın incelenmesi aşamasında, anlamlılık seviyesi olarak ,05 değeri alındı. Anlamlılık durumu $P<.05$ olduğu durumlarda gruplar arasında anlamlı bir farklılığa ulaşıldı.

Araştırmanın Etik İlkeleri

Araştırmanın yapılabilmesi için Erzurum ilinde bulunan Atatürk üniversitesi Tıp Etik Kurulu Başkanlığından onay alındı (Etik Kurul No: B.30.2.ATA.0.01.00/188). Araştırmaya katılacak gönüllü katılımcılara araştırmanın yapılma amacı, yöntemi ankete başlamadan önce açıklama kısmında bilgi verildi Araştırmaya katılmanın herhangi bir risk taşımadığı, katılımın tamamen gönüllülük esasına dayandığı, istendiği zaman araştırmadan ayrılabileceği bilgileri yazıldı. Ayrıca

katılımcıların kişisel bilgilerinin kimse ile paylaşılmayacağı "Gizlilik ve Gizliliğin Korunması ilkesine" uyulmasına özen gösterileceği bilgisine de yer verildi. Elde edilen bilgilerin ve cevaplayanın kimliği gizli tutularak "Kimliksizlik ve Güvenlik ilkesi" yerine getirildi. Çalışma süresince İnsan Hakları Helsinki Deklerasyonu'na sadık kalındı.

Birden fazla gönderimi kontrol etmek için, google dokümanlar ayarlarından "yalnızca bir kez gönder" düğmesine tıklanarak tekrarlanan girişler engellendi. Böylece katılımcıların anketi yalnızca bir kez doldurmasına izin verildi ve veri güvenliği sağlandı. Aynı zamanda ayarlar bölümünde "Katılımcıların tüm soruları yanıtlamamaları halinde anketi göndermelerine izin verilmeyecektir" seçeneği işaretli olduğundan; etkili yanıt oranı %100 idi. Hemşirelerin çalışmaya başlamadan önce araştırma hakkında açıklama ve onam bilgisi ilk kısma eklendi ve araştırmaya katılmayı kabul ediyorum butonu işaretlendikten sonra online anket başlatıldı. Bu nedenle gerçekleştirilen anketlere katılan katılımcıların tamamı kendi rızası doğrultusunda formu doldurup çalışmaya gönüllü olarak katılmıştır.

BULGULAR

Araştırma kapsamına alınan hemşirelerin tanıtıcı özelliklerinin dağılımı ve karşılaştırılması Tablo 1'de verildi.

Tablo 1. Aşı Olan ve Aşı Olmayan Hemşirelerin Tanıtıcı Özelliklerinin Karşılaştırılması

Özellikler	Aşı olanlar (n=77)		Aşı olmayanlar (n=33)		Test ve *P* değeri
	Sayı	Yüzde	Sayı	Yüzde	
Cinsiyet					
Kadın	63	81,8	24	72,7	X^2=1,15
Erkek	14	18,2	9	27,3	*P*=,28
Medeni durum					
Evli	25	32,5	15	45,5	X^2=1,68
Bekâr	52	67,5	18	54,5	*P*=,19
Eğitim					
Lise	13	16,9	8	24,2	X^2=0,81
Lisans	64	83,1	25	75,8	*P*=,36
Çalışma yılı					
1-5 yıl	54	70,1	25	75,8	X^2=0,36
6 yıl ve üzeri	23	29,9	8	24,2	*P*=,54
Çalışılan klinikteki hemşire sayısı					
Yeterli	31	40,3	10	30,3	X^2=1,01
Yetersiz	29	37,6	14	42,4	*P*=,60
Kısman yeterli	17	22,1	9	27,3	
Mesleği severek yapma durumu					
Evet	51	66,2	21	63,6	X^2=0,06
Hayır	26	33,8	12	36,4	*P*=,79
Çalışma koşullarından memnun olma durumu					
Evet	14	18,2	10	30,3	X^2=1,99
Hayır	63	81,8	23	69,7	*P*=,15
Covid-19 şüphesi olan hastayla karşılaşma durumu					
Evet	75	97,4	32	97,0	X^2=0,01
Hayır	2	2,6	1	3,0	*P*=,89
Covid-19 şüphesi olan hastaya izolasyon uygulama durumu					
Evet	68	88,3	27	81,8	X^2=0,82
Hayır	9	11,7	6	18,2	*P*=,36
Covid-19 olma durumu					
Evet	30	39,0	13	39,4	X^2=0,01
Hayır	47	61,0	20	60,6	*P*=,96
			$\overline{X}$ ± SS		
Yaş (yıl)			27,09 ± 4,85		

X^2; Ki-kare testi, SS; Standart Sapma, $\overline{X}$; Ortalama

Grupların tanıtıcı özellikleri karşılaştırıldığında grupların tanıtıcı özellikleri arasındaki farkın istatistiksel olarak anlamlı olmadığı ve grupların değişkenler yönünden benzer özelliklere sahip olduğu belirlendi (*P*>,05). Hemşirelerin C-19KÖ ve TÖ ölçeklerinden aldıkları minimum, maksimum ve puan ortalamalarının dağılımı ve karşılaştırılması Tablo 2'de görülmektedir. Aşı olan hemşirelerin C-19KÖ puan ortalamasının 17,90 ± 6,102, TÖ puan ortalamasının 16,88 ± 5,10, aşı olmayan hemşirelerin C-19KÖ puan ortalamasının 17,24 ± 6,13, TÖ puan ortalamasının 16,84 ± 4,28 olduğu ve her iki ölçek puan ortalamalarının da gruplar arasında istatistiksel anlamlılık oluşturacak fark olmadığı saptandı (*P*>,05).

Tablo 2. Aşı Olan ve Aşı Olmayan Hemşirelerin C-19KÖ ve TÖ Ölçeklerinden Aldıkları Puan Ortalamalarının Karşılaştırılması

	Aşı olanlar			Aşı olmayanlar			Test ve *P* değeri
Ölçekler	**Min.**	**Maks.**	$\overline{X}$ ± SS	**Min.**	**Maks.**	$\overline{X}$ ± SS	
C-19KÖ	7	32	17,90 ± 6,102	7	31	17,24 ± 6,13	t=0,52, *P*=,60
TÖ	7	28	16,88 ± 5,10	7	24	16,84 ± 4,28	t=0,03, *P*=,97

C-19KÖ; Covid-19 Korkusu Ölçeği, TÖ; Tanatofobi Ölçeği, SS; Standart Sapma; Min.; Minimum; Maks.; Maksimum, $\overline{X}$; Ortalama

Hemşirelerin aşı olma durumuna C-19KÖ ve TÖ ölçeklerinden aldıkları puan ortalamaları arasındaki ilişkinin dağılımı incelendiğinde; aşı olmayanların TÖ ile C-19KÖ toplam puanları arasında pozitif yönde ileri derecede anlamlılık oluşturarak düzeyde ilişki olduğu saptandı (*P*<.001).

Tablo 3. Aşı Olan ve Aşı Olmayan Hemşirelerin Aşı Olma Durumuna Göre C-19KÖ ve TÖ Ölçeklerinden Aldıkları Puan Ortalamaları Arasındaki İlişki

Aşı olma durumu			**C-19KÖ**
Aşı olanlar	**TÖ**	r	,128
		P	,265
Aşı olmayanlar	**TÖ**	r	**,656****
		P	**,001**

C-19KÖ: Covid-19 Korkusu Ölçeği, TÖ: Tanatofobi Ölçeği

Aşı olan hemşirelerin tanıtıcı özelliklerine göre C-19KÖ ve TÖ puan ortalamaları karşılaştırıldığında (Tablo 4); çalışılan klinikteki elaman sayısı ile TÖ puan ortalamaları arasında istatistiksel olarak önem arz eden farkın olduğu saptanırken (*P*<.05), diğer tanıtıcı özellikleri ile her iki ölçek puan ortalamaları arasındaki farkın istatistiksel olarak anlamlı olmadığı saptandı (*P*>.05).

Tablo 4. Aşı Olan Hemşirelerin Tanıtıcı Özelliklerine Göre C-19KÖ ve TÖ Puan Ortalamalarının Karşılaştırılması

Özellikler	**C-19KÖ** $\overline{X}$ ± SS	**TÖ** $\overline{X}$ ± SS
Cinsiyet		
Kadın	18,31 ± 6,37	16,96 ± 4,90
Erkek	16,07 ± 4,61	16,50 ± 6,11
Test ve p değeri	MW-U=354,50, *P*=,25	MW-U=406,50, *P*=,64
Medeni durum		
Evli	19,20 ± 6,05	16,20 ± 4,85
Bekar	17,28 ± 6,12	17,21 ± 5,22
Test ve p değeri	MW-U=565,00, *P*=,21	MW-U=567,00, *P*=,36
Eğitim		
Lise	19,53 ± 4,21	16,07 ± 5,76
Lisans	17,57 ± 6,42	17,04 ± 4,99
Test ve p değeri	MW-U=324,50, *P*=,21	MW-U=353,50, *P*=,39

Tablo 4. Aşı Olan Hemşirelerin Tanıtıcı Özelliklerine Göre C-19KÖ ve TÖ Puan Ortalamalarının Karşılaştırılması (Devamı)		
Özellikler	**C-19KÖ** $\overline{X}$ ± SS	**TÖ** $\overline{X}$ ± SS
Çalışma yılı		
1-5 yıl	17,22 ± 6,21	16,92 ± 4,99
6 yıl ve üzeri	21,41 ± 4,46	17,08 ± 6,62
Test ve p değeri	MW-U=486,00, *P*=,13	MW-U=603,00, *P*=,84
Çalışılan klinikteki hemşire sayısı		
Yeterli	18,70 ± 7,11	15,70 ± 4,39
Yetersiz	17,00 ± 5,43	16,10 ± 4,75
Kısman yeterli	18,00 ± 5,37	20,35 ± 5,58
Test ve p değeri	KW=0,67, *P*=,71	KW=8,20, ***P*=,01**
Mesleği severek yapma durumu		
Evet	18,47 ± 6,32	16,03 ± 4,52
Hayır	16,80 ± 5,67	18,53 ± 5,81
Test ve p değeri	MW-U=577,00, *P*=,35	MW-U=504,00, *P*=,08
Çalışma koşullarından memnun olma durumu		
Evet	18,35 ± 7,62	16,85 ± 5,27
Hayır	17,80 ± 5,81	16,88 ± 5,10
Test ve p değeri	MW-U=432,50, *P*=,91	MW-U=422,50, *P*=,80
Covid-19 şüphesi olan hastayla karşılaşma durumu		
Evet	17,97 ± 6,16	16,86 ± 5,16
Hayır	15,50 ± 4,94	17,50 ± 0,70
Test ve p değeri	MW-U=57,50, *P*=,59	MW-U=62,00, *P*=,70
Covid-19 şüphesi olan hastaya izolasyon uygulama durumu		
Evet	17,85 ± 6,35	17,02 ± 5,21
Hayır	18,33 ± 4,27	15,77 ± 4,20
Test ve p değeri	MW-U=285,00, *P*=,73	MW-U=276,00, *P*=,63
Covid-19 olma durumu		
Evet	17,00 ± 5,65	16,36 ± 5,04
Hayır	18,48 ± 6,39	17,21 ± 5,16
Test ve p değeri	MW-U=631,00, *P*=,43	MW-U=631,50, *P*=,44

C-19KÖ: Covid-19 Korkusu Ölçeği, TÖ: Tanatofobi Ölçeği, KW; Kruskall–Wallis testi; MW-U; Mann–Whitney U-testi SS; Standart Sapma; $\overline{X}$; Ortalama

Aşı olmayan hemşirelerin tanıtıcı özelliklerine göre C-19KÖ ve TÖ puan ortalamaları karşılaştırıldığında (Tablo 5); hemşirelerin tanıtıcı özellikleri ile C-19KÖ puan ortalamaları arasında istatistiksel anlamlılık oluşturacak fark olmadığı saptanırken (*P*>,05), hemşirelerin yalnızca eğitim durumları ve çalışılan klinikteki elaman sayısı ile TÖ puan ortalamaları arasındaki farkın istatistiksel olarak önemli olduğu saptandı (*P*<,05).

Tablo 5. Aşı Olmayan Hemşirelerin Tanıtıcı Özelliklerine Göre C-19KÖ ve TÖ Puan Ortalamalarının Karşılaştırılması		
Özellikler	**C-19KÖ** $\overline{X}$ ± SS	**TÖ** $\overline{X}$ ± SS
Cinsiyet		
Kadın	17,50 ± 5,65	17,20 ± 4,33
Erkek	16,55 ± 7,60	15,88 ± 4,25
Test ve p değeri	MW-U=99,50, *P*=,73	MW-U=89,00, *P*=,46
Medeni durum		
Evli	17,13 ± 6,05	16,26 ± 4,35
Bekar	17,33 ± 6,37	17,33 ± 4,29
Test ve p değeri	MW-U=133,00, *P*=,95	MW-U=116,50, *P*=,50

Tablo 5. Aşı Olmayan Hemşirelerin Tanıtıcı Özelliklerine Göre C-19KÖ ve TÖ Puan Ortalamalarının Karşılaştırılması (Devamı)

Özellikler	C-19KÖ $\overline{X}$ ± SS	TÖ $\overline{X}$ ± SS
Eğitim		
Lise	14,12 ± 3,79	12,87 ± 2,74
Lisans	18,24 ± 6,45	18,12 ± 3,91
Test ve p değeri	MW-U=68,00, *P*=,19	MW-U=26,00, ***P*=,001**
Çalışma yılı		
1-5 yıl	17,16 ± 5,92	17,64 ± 4,02
6 yıl ve üzeri	18,40 ± 9,26	15,40 ± 5,36
Test ve p değeri	MW-U=98,50, *P*=,95	MW-U=55,00, *P*=,06
Çalışılan klinikteki hemşire sayısı		
Yeterli	16,50 ± 3,34	15,50 ± 3,17
Yetersiz	18,71 ± 8,09	19,14 ± 4,38
Kısman yeterli	15,77 ± 4,94	14,77 ± 3,83
Test ve p değeri	KW=0,82, *P*=,66	KW=9,14, ***P*=,01**
Mesleği severek yapma durumu		
Evet	15,76 ± 4,40	16,14 ± 4,01
Hayır	19,83 ± 7,91	18,08 ± 4,64
Test ve p değeri	MW-U=88,00, *P*=,16	MW-U=87,00, *P*=,15
Çalışma koşullarından memnun olma durumu		
Evet	14,90 ± 3,95	16,30 ± 4,21
Hayır	18,26 ± 6,68	17,08 ± 4,38
Test ve p değeri	MW-U=88,00, *P*=,30	MW-U=104,00, *P*=,68
Covid-19 şüphesi olan hastayla karşılaşma durumu		
Evet	17,34 ± 6,20	16,93 ± 4,32
Hayır	14,00 ± 0,01	14,00 ± 0,01
Test ve p değeri	MW-U=8,50, *P*=,54	MW-U=8,50, *P*=,54
Covid-19 şüphesi olan hastayla izolasyon uygulama durumu		
Evet	17,22 ± 5,50	16,70 ± 3,64
Hayır	17,33 ± 9,13	17,50 ± 6,92
Test ve p değeri	MW-U=76,00, *P*=,83	MW-U=65,00, *P*=,47
Covid-19 olma durumu		
Evet	16,76 ± 6,94	17,15 ± 4,79
Hayır	17,55 ± 5,71	16,65 ± 4,04
Test ve p değeri	MW-U=112,50, *P*=,52	MW-U=120,50, *P*=,73

C-19KÖ: Covid-19 Korkusu Ölçeği, TÖ: Tanatofobi Ölçeği, KW; Kruskall–Wallis testi; MW-U; Mann–Whitney U-testi SS; Standart Sapma; $\overline{X}$; Ortalama

TARTIŞMA

Aşı olan ve olmayan hemşirelerin Covid-19 ile ölüm korkusu durumlarının benzer olduğu, aşı durumunun anlamlı farklılık oluşturmadığı görülmektedir. Bu çalışmaya katılan aşı olan ve olmayan hemşirelerin Covid-19 ve ölüm korkusu durumunun orta düzeyde olduğu söylenebilir. Benzer şekilde Güngör ve ark. tarafından yapılan bir çalışmada hemşirelerin Covid-19 korkusunun orta düzeyde olduğu görülmüştür.[20] Aşı durumunun Covid-19 ve ölüm korkusu durumlarında değişiklik göstermemesinin nedeni Covid-19 virüsü ile sürekli karşılaşan hemşirelerin koruyucu önlemleri almaları ve aşı olmaları onları rahatlatsa da yine de bu korkuyu yaşadıkları şeklinde yorumlanmıştır.

Hemşirelerin aşı olma durumları ile Covid-19 Korkusu ve Tanatofobi durumları arasındaki ilişki incelendiğinde; aşı olmayanların Tanatofobi Ölçeği ile Covid-19 Korkusu Ölçeği toplam puanları arasında pozitif yönde ileri derecede anlamlılık oluşturacak düzeyde ilişki olduğu görüldü. Yani aşı olmayan hemşirelerin Covid-19 korku düzeyleri arttıkça ölüm korkusu durumları da paralelinde artmaktadır. Hu ve ark.[21] Covid-19 hastalarının bakımını gerçekleştiren hemşireler ile bir çalışma sonucunda hemşirelerde ölüm

korkusunun yüksek seviyede olduğu görülmüştür.[21] Yine bu çalışmayı destekler nitelikte Yiğit ve Açıkgöz[15] yaptığı çalışmada hemşirelerin ölüm anksiyetesi düzeyinin yüksek olduğu görülmüştür.[15] Pandemi sürecinde gerçekleştirilen benzer çalışmalarda da hemşirelerin ölüm kaygısının yüksek olduğu sonucuna ulaşılmıştır.[21,22] Kavaklı[23] yapmış olduğu çalışmasında Covid-19 salgınının hızlı ve beklenmeyen bir şekilde ortaya çıkması ve bütün dünyayı etkilemesinin bireylerde bir tehdit algısı oluşmasına sebep olduğunu ifade etmiştir.[23] Bu durumun dolaylı bir şekilde ölüm anksiyetesine sebep olduğunu ifade eden araştırmacı Covid-19 sürecinin belirsizliğinin ve hayatını kaybedenlerin defnedilmesi gibi durumların süreci daha da zorlaştırdığını ifade etmektedir. Turhan[24] ise yapmış olduğu çalışmasında virüsün ne zaman biteceğine yönelik belirsizlik hissettiğine dair vurgu yapmıştır.[24] Covid-19 salgınının ortaya çıkardığı belirsizlik beraberinde insanların üstünde baskı yaratmıştır. Bu durum özellikle hastalıkla iç içe kalmak zorunda olan sağlık çalışanlarını daha fazla etkilemiştir. Aynı zamanda belirsizlik ile hastalarda Covid-19 un etkisi olan akut solunum güçlüğü, CRP (C-Reaktif Protein) değerindeki ani artışlar, kan pıhtılaşma faktörünün artışı gibi kontrolü neredeyse zor olan laboratuvar ve klinik bulgularının değişimi hastalarla iç içe olan hemşireleri Covid-19 olma ve ölüm korkusuna sürüklemiştir. Bazen yakın çevreleri, bazen iş arkadaşlarının kayıpları da bu korkuların artışına sebep olmuştur. Aynı zamanda aşı olmayan Covid-19 hastaların kliniğinin daha kötü seyretmesi ise aşı olmayan hemşirelerde hem Covid-19 korkusuna hem de ölüm korkusuna sebep olmuş ve korku düzeylerini arttırmıştır. Buradan yola çıkıldığında ise salgın sürecinde hemşirelerin ölüm anksiyetesi yaşamaları kaçınılmaz bir durumdur. Ancak genel olarak literatür incelendiğinde aşı olma ve olmama durumu ile Covid-19 ve ölüm korkusu durumuna yönelik çok fazla çalışma yapılmadığı görülmektedir. Bu durumun en önemli sebebi ise Covid-19'un çok yeni bir hastalık olması ve hâlihazırda üzerine çalışılacak zamanın kısıtlı olmasıdır.

Aşı olan hemşirelerin tanıtıcı özellikleri ile Covid-19 korkusu puan ortalamaları arasında anlamlı bir ilişki bulunamazken, Tanatofobi ölçeği puan ortalamaları ile sadece çalışılan klinikteki hemşire sayısı arasında anlamlılık bulundu. Klinikte hemşire sayısını kısmen yeterli ve yetersiz bulan hemşirelerin ölüm korkularının daha yüksek olduğu görüldü. Gedik ve Hocaoğlu Uzunkaya[25] yapmış oldukları çalışmada Covid-19 sürecinde hemşire sıkıntısının en önemli konular arasında olduğunu ifade etmiştir.[25] Literatürde yer alan pek çok çalışma da hemşire başına hasta sayısının fazla olduğu, hemşireler üzerindeki iş yükünün yüksek olduğu ve dengeli bir şekilde dağıtılmadığı, tüm bunların da strese sebep olduğu ortaya koyulmaktadır.[26-27] Simmons[28] ise yapmış olduğu çalışmasında hemşire sayısının az olmasının hem hastane hem de toplum üzerinde olumsuz etkiler yarattığını ve özellikle hemşirelerin işten ayrılmasına sebep olduğunu belirtmiştir.[28] Meydana gelen bu durumun en büyük sebebi salgının ilerleyen dönemlerinde, hastaneye yatış konusunda daha fazla talep olması ve hemşirelerin bu dönemde pandemi servislerine yönlendirilmesi olarak düşünülmektedir. Pandemi servislerinde çalışan sayısının artması beraberinde diğer bölümlerin hemşire eksikliği yaşamasına sebep olmaktadır. Bu durumun en önemli sebebi çalışılan klinikteki hemşire sayısının yetersiz olmasına bağlı olarak hemşirelerin iş yükünün artış göstermesidir. Çünkü pandemi sürecinde hemşire yetersizliğinde planlı cerrahilerin alınmamasına bağlı olarak cerrahi kliniklerde çalışan hemşirelerin farklı birimlere de destek vermesi gerekliliği doğmuştur. Özellikle pandemi döneminde sıkça yaşanan bu durumun zaten iş yükü fazla olan hemşireler üzerindeki yükü bir kat daha artırmıştır. Bir diğer faktör ise pandemi süresince gebeliğin yirmi dördüncü haftasından otuz ikinci haftasına kadar olan süre içinde olan gebe çalışanlar, engeli olan çalışanlar ve süt izni bulunan çalışanlar idari izinli olarak sayıldıkları için hastanelerde çalışan hemşire sayısında ekstra bir azalma olmuştur. Zor şartlarda çalışmakta olan hemşirelerin sayısındaki bu azalış ile ayrıca iş yükünü arttırmış olması hemşireleri psikolojik olarak etkileyerek ölüm korkusunu arttırmış olabileceği şeklinde düşünülebilir.

Aşı olmayan hemşirelerin tanıtıcı özellikleri ile Covid-19 Korkusu Ölçeği puan ortalamaları arasında istatistiksel anlamlılık oluşturacak fark olmadığı görülürken, eğitim durumları ve çalışılan klinikteki kişi sayısı ile Tanatofobi Ölçeği puan ortalamaları arasındaki farkın anlamlı olduğu lisans mezunu ve çalıştığı klinikteki hemşire sayısını yetersiz bulan hemşirelerin tanatofobilerin daha yüksek olduğu görüldü. Benzer şekilde Yılan[29] tarafında yapılan çalışmada eğitim durumuna göre Covid-19 Korkusu Ölçeği puan ortalamasının farklılaştığı görülmüştür.[29] Işık, Fadıloğlu ve Demir[30] tarafından yapılan çalışmada lisans mezunu olan hemşirelerin ölüm korkusu seviyesinin yüksek olduğu ifade edilmiştir. Her iki çalışmada da eğitim seviyesi yüksek olan katılımcıların korku düzeyinin daha yüksek olduğu görülmektedir. Wessel ve Rutledge[31] tarafından gerçekleştirilen evde bakım veren hemşirelerin ölüme karşı tutumuna yönelik gerçekleştirilen çalışmada hemşirelerin eğitim düzeyinin artmasıyla ölüme karşı tutumlarının; ölümden kaçınma ve ölüm korkusunun değişim gösterdiği görülmektedir. Ayrıca İnce'nin[32] yoğun bakım hemşireleri üzerinde gerçekleştirdiği çalışmasında da yüksek lisans

seviyesinde eğitim alanların ölüm kaygısının daha yüksek olduğunu ifade etmektedir. Bunun en büyük sebebinin ise, hastalık konusunda bilinç düzeyinin artışına bağlı olarak hastalığa karşı geliştirilen korku düzeyinin artması olduğu düşünülmektedir. Bunun yanı sıra Covid-19 pandemisi ile beraber Sağlık bakanlığı tarafından gerçekleşen atama da birçok pandemi servisinde yeni işe başlayan lisans hemşirelerinin çok yönlü korku ve anksiyete yaşadığı bilinmektedir. Pandemi dönemi ile yeni başlayan hemşirelerin oryantasyon eğitimlerinin yeterli yapılamadığı düşünüldüğünde; kliniklere hem iş konusunda hakimiyetsizlik hem de pandemi de zor şartlar altında çalışmaya başlamaları ile birlikte Covid-19 ve ölüm korkusunu yüksek düzeyde yaşamaları beklenen bir durum olarak düşünülmektedir. Beraberinde yeni işe başlayan hemşirelere oryantasyon sağlamak adına daha kıdemli hemşirelerin onlara mentörlük yaparak hemşirenin eğitici rolü ile birlikte işi öğretmeleri ise pandemi esnasında mentörlük konumundaki hemşirelerinde pandemi sürecinde bilinmezlik içinde olması, iş yükünün artışı, pandemiye bağlı sorumlu kliniklerdeki değişim sirkülasyonu bu öğretimi sekteye uğratarak bu desteğin azalmasına ve dolayısı ile işe yeni başlayan lisans hemşirelerinin Covid-19 ve ölüm korkularını daha yoğun yaşamalarına sebep olabileceği şeklinde düşünülmektedir.

Araştırmanın Sınırlılıkları ve Genellenebilirliği

Araştırmanın Erzurum ilinde bulunan bir araştırma hastanesi ve bir bölge eğitim hastanesinde yapılmış olması ve diğer hastanelerin cerrahi kliniklerinde çalışan hemşirelerin araştırmaya dâhil olmaması ve hemşireler ile yüz yüze görüşme yapılamaması, Covid-19 Korkusu Ölçeği ile Tanatofobi Ölçeği kullanılarak araştırma yapılması araştırmanın sınırlılığıdır. Bu araştırma sonuçları belirtilen hastanelerin cerrahi kliniklerinde çalışmakta olan hemşirelere genellenebilir.

Çalışma sonucunda hemşirelerin aşılanma durumları ile Covid-19 korkusu ve Tanatofobi ölçeklerinden aldıkları puan ortalamaları arasında istatistiksel anlamlılık oluşturacak farklılık oluşturmadığı, cerrahi klinikte çalışan hemşirelerin aşılanma durumlarının Covid-19 ve ölüm korkusu üzerinde farklılık oluşturmadığı görüldü. Ayrıca aşı olmayan hemşirelerin Covid-19 korkuları artıkça ölüm korkularının da arttığı ve çalışılan klinikteki hemşire sayısının yetersiz veya kısmen yeterli olmasının da ölüm korkusunu artırdığı belirlendi. Sonuçlar doğrultusunda; hemşirelerde mevcut bulunan Covid-19 ve ölüm korkusunun azaltılabilmesi adına hemşirelere psikososyal destek sağlanması, hizmet içi eğitim programlarında bu korkular ile başa çıkma yöntemlerine ilişkin konulara yer verilmesi, sebebi bilinmeyen hastalıklara karşı önlem alınması adına belirli zaman aralıklarında sağlık çalışanlarının psikolojik hazırlanmaları adına eğitimlerin yapılması, hemşirelerin yaşadığı Covid-19 ve ölüm korkusuna dair önlemlerin alınması, aşı olmayan hemşirelere aşıya yönelik eğitimlerin verilmesi önerilmektedir.

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Specialization in Nursing from the Perspective of Academician, Clinician and Student Nurses: A Qualitative Research

Akademisyen, Klinisyen ve Öğrenci Hemşirelerin Gözünden Hemşirelikte Uzmanlaşma: Nitel Bir Araştırma

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ABSTRACT

Objective: The health care needs in the community make the specialization in nursing more crucial. The aim of this study is to examine the views of academicians, clinicians and student nurses towards specialization in nursing.

Methods: This qualitative type of study was conducted in the case study design. The study was carried out between October and November, 2021, with 21 participants selected by the maximum diversity sampling technique. The semi-structured interview technique was used and the expressions were recorded. The theme and subtheme were determined by the content analysis. The Standards for Reporting Qualitative Research (COREQ) was used to report this research.

Results: Three main themes and six sub-themes were determined. The main themes were quality of care, obstacles and constructive ideas. The sub-themes were clinical knowledge and skills, scientific attitude, education system, institutional factors, change in policies and dignity.

Conclusion: The participants have faith in the fact that specialization in nursing would increase the quality of health care and nursing. They believed that the health care system and working conditions prevent specialization. They emphasize the need to develop policies for the betterment of specialization.

Keywords: Education, Nursing, Specialization, Qualitative study

ÖZ

Amaç: Toplumdaki sağlık bakım gereksinimleri, hemşirelikte uzmanlaşmayı daha önemli hale getirmektedir. Bu çalışmanın amacı akademisyenlerin, klinisyenlerin ve öğrenci hemşirelerin hemşirelikte uzmanlaşmaya yönelik görüşlerini incelemektir.

Yöntemler: Bu nitel araştırma türü durum çalışması desende yürütülmüştür. Çalışma, maksimum çeşitlilik örnekleme tekniği ile seçilen 21 katılımcı ile Ekim-Kasım 2021 tarihleri arasında gerçekleştirilmiştir. Yarı yapılandırılmış görüşme tekniği kullanılmış ve ifadeler kayıt altına alınmıştır. Tema ve alt temalar içerik analizi ile belirlenmiştir. Bu araştırmayı raporlamak için Kalitatif Araştırma Raporlama Standartları (COREQ) kullanılmıştır.

Bulgular: Üç ana tema ve altı alt tema belirlenmiştir. Ana temalar bakımın kalitesi, engeller ve yapıcı fikirler idi. Alt temalar; klinik bilgi ve beceriler, bilimsel tutum, eğitim sistemi, kurumsal faktörler, politikalarda değişim ve itibar olarak sıralanmaktadır.

Sonuç: Araştırmada katılımcıların çoğunun hemşirelikte uzmanlaşmanın sağlık hizmeti ve hemşirelik bakımının kalitesini artıracağını düşündüğü; fakat sistemin ve koşulların uzmanlaşmaya engel olduğuna inandığı belirlenmiştir. Katılımcılar uzmanlaşmanın geliştirilmesi için politika üretilmesi gerektiğini vurgulamaktadır.

Anahtar Kelimeler: Education, Nursing, Specialization, Qualitative study

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INTRODUCTION

Specialization is a stage of professional and academic development and creates opportunities to improve the quality of nursing services and the nursing profession.[1-3] The concept of specialization in nursing was defined specialization as "a delimited or concentrated area of expert clinical practice with focused knowledge and competencies".[4]

Sociocultural factors such as population growth, newly developing or increasingly effective infectious diseases, chronic diseases, wars and conflicts, and migration occurring across the world lead to alterations and diversity in the healthcare needs of the individual and society. Concordantly, the demand for professional nursing services of individuals and society is increasing all over the World.[5,6] For nurses to respond to this need, they need to be knowledgeable and equipped on issues such as critical thinking, being a qualified reader, evidence-based practice, and scientific research process; In addition, nursing interventions should be based on scientific knowledge.[7-9] Reports implicate that the optimal way for applications to be based on scientific knowledge and evidence is through qualified education and specialization.[4]

Various studies have been carried out on the attitude towards specialization in nursing across the world. According to a study conducted in Ethiopia, nurses had a negative attitude towards specialization. The reasons for this are; salary dissatisfaction, lack of encouragement, inadequacy of in-service training, workload, lack of respect for health workers, insecurity, managers' lack of focus on specialization, lack of job definition, and lack of vision.[10] In a study examining the opinions of academicians, clinicians, and student nurses on the future of nursing in Singapore, filling the gap between theory and practice, changing the curriculum, and the lack of nurses were emphasized as crucial issues.[11] In a qualitative study conducted in England, student nurses explained specialization with a dilemma between a specialist nurse and a caregiver; Also, they mainly described specialization with negative expressions such as vulnerability, symbolic representation, and discontent.[12] As to a study based in Turkey, 79.3% of nursing students wanted to specialize.[13] However, the expression of specialist nurse is not included in the nursing legislation in Turkey.[14] Studies have shown that nurses who completed their postgraduate education could not receive the title of specialist even though they had a postgraduate degree.[15,16]

AIM

This study aims to examine the views of the students working as academicians or studying in the nursing department and the nurse clinicians working in a hospital towards specialization in nursing.

METHODS

Study design

This research was conducted with the case study design, which is a design of qualitative research method. A case study is conducted to identify and analyse a situation.[17-19] In this study, the views of academicians, clinicians and student nurses on specialisation were examined. This design was preferred in order to examine the views of academicians, clinicians and student nurses on specialisation in detail and in depth. Consolidated criteria for reporting qualitative research (COREQ) checklist was followed as the reporting guideline for qualitative study.[20]

Participants

The research was conducted on 21 people consisting of academicians, clinicians and student nurses. Purposive sampling, which is one of the qualitative research sampling types, helps the researcher to access important sources related to the event or subject to be investigated. It allows in-depth examination of the phenomenon to be investigated.[21] Among the purposeful sampling types, sampling with maximum diversity was used. In order to ensure maximum data diversity; academicians with different professional experience and different majors, clinicians working in different departments and having different clinical experience, and students in different classes were preferred.

Data Collection Tools

An interview is a verbal dialogue with people to understand what and why they think about a topic. Interview is defined as an interactive educational process based on asking and answering questions for a predetermined purpose. The main purpose of the interview is to reveal the feelings, thoughts and beliefs of the communicated individual about the subject under investigation.[18,22,23] Therefore, in the present study, semi-structured interview was used as a data collection tool.[23,24] In the process of creating the interview form, firstly, an extensive literature review on the subject should be conducted and expert opinions should be used to determine whether the prepared questions fit the objectives of the study.[25] Pilot applications should be conducted on the draft of the interview form before the actual application. Because pre-test or pilot applications will provide a great advantage in eliminating the flaws in the interview form questions.[26] In the process of preparing the semi-structured interview form, the researcher firstly conducted a literature review on the subject and a semi-

structured interview form consisting of five questions was prepared by utilising the data obtained from the literatüre.[27-29] After the interview form was created, the opinions of two experts with experience in the field of nursing (one in the field of nursing and the other two academicians with experience in qualitative research) were obtained. In line with the data obtained from the expert opinions, the interview form was re-examined by the researcher in terms of clarity, appropriateness and adequacy of the questions and necessary corrections were made. After the expert opinion, a pilot study was conducted with 3 participants and the interview questions were revised. These interviews were not included in the study. No changes were made after the pilot application. The interview questions are given below:

Semi-structured Interview Form:

1. What do you think about specialization in nursing?
2. How do you think specialization in nursing affects the nursing profession and nursing care?
3. What factors do you think prevent specialization in nursing?
4. What are your solution suggestions for improving specialization in nursing?
5. If there is something that I did not mention and you want to add, please share it.

Data Collection

Academicians, clinicians and student nurses were informed about the interview topic in advance and then the interviews were conducted. All interviews were conducted by the first author, a female research assistant. Data were collected through semi-structured interviews using data collection forms between October 26 and November 30, 2021. Nurse academicians who agreed to participate in the study were called in advance and appointments were made and interviews were conducted in their offices. Clinician nurses were interviewed during their breaks outside the hospital. Finally, student nurses were interviewed in the office of the researcher who conducted the interviews. Interview questions were asked to each participant in the same order. Interviews were recorded with a voice recorder after the participant was informed and permission was obtained, and observation notes were kept during the interviews. All interviews were conducted face-to-face. When the data reached saturation and repeated data were obtained, the data collection process was terminated. The interviews lasted an average of 25 minutes.

Data Analysis

Demographic data were analysed using descriptive statistics. Content analysis was performed on the transcribed data obtained from the interviews.[30] The aim of the analysis was to understand the meaning that the participants attributed to their experiences rather than measuring the frequency of sub-themes. Therefore, themes and sub-themes were derived.[31] Each interview was transcribed and read and re-read by two independent researchers (the first author who conducted the interviews and the third author with qualitative research experience). This was followed by listening to the audio recordings, reading the transcripts repeatedly and generating sub-themes. As data collection and analysis continued, new meanings were identified and similarities and differences were compared. An inductive approach was followed.

Themes were reviewed to understand how they fit the whole and the purpose of the study. The final themes and sub-themes were named and described in detail, supported by direct quotes from participants.[31] Thus, the stories were placed in a stronger context.

In addition, under the sub-themes assigned to each theme, direct quotations of the participants' views on the subject were presented.

Credibility, Trustworthiness and Transferability of Qualitative Data

In this study, credibility was ensured through a detailed interview, support with quotations, and expert opinion. The interviews were held in an environment where the participants would feel comfortable, in other words, in an atmosphere of mutual trust. The participants were given sufficient time to explain their views, and at the end of the interview, they were asked if they had anything else to add. The theme and sub-themes were supported by participants' statements. Factors that would cause any conflict of interest between the participants and the interviewer were eliminated. There is no conflict of interest between the students participating in the study and the researchers, and there is no course or exam assessed by the researcher conducting the interview. After the interviews were completed, opinions on the themes and sub-themes were obtained from two experts who were outside the research team and had qualitative research experience. More than one researcher was involved in the collection, analysis, and interpretation of the data to ensure the trustworthiness feature of the study. The fact that the results obtained from the interviews can be transferred to academicians, clinicians, and student nurses in other parts of the world shows the transferability feature of the study because the participants were created with the maximum diversity method and the credibility and trustworthiness aspects of the study were sufficient.

Reflexivity

The background and location of the researchers may affect the study subject, study perspective, methods found most

suitable for the aim of the study, and the qualitative research results.[32] All researchers in this study take an active role in theoretical and applied nursing education. One of the researchers (Assist. Prof.) has experience in qualitative research methods, while the other one (Prof.) has been working as an instructor at both undergraduate and graduate levels for many years. The researcher (first author) who conducted the interviews (Res. Assist.) has both experiences working in the hospital where clinician nurses work and still works as an academician at the school where the interview was conducted. The same researcher completed his undergraduate education at the same school a few years ago and is continuing his graduate education there. In this respect, since he shared the same experiences with all the participants in the study at different times, he can understand them and look from their perspective. All these properties constitute the reflexivity feature of the study.

Ethical Aspect of the Study

To be able to make the study happen, institutional permissions were obtained from the hospital and faculty, and permission from the Non-Invasive Clinical Research Ethics Committee of the Faculty of Medicine of Kırşehir Ahi Evran University (Decision no: 2021-14/158 Date: 07.09.2021). After explaining the subject and aim of the study to the participants, their verbal consent was obtained. Their names have been kept confidential, and all participants have been given sequence numbers.

RESULTS

The ages of the nurses ranged from 21 to 48, with fourteen women and seven men. Three main themes and nine sub-themes formed as a result of the analysis of the qualitative data obtained from the interviews are shown in Figure 1 (Figure 1).

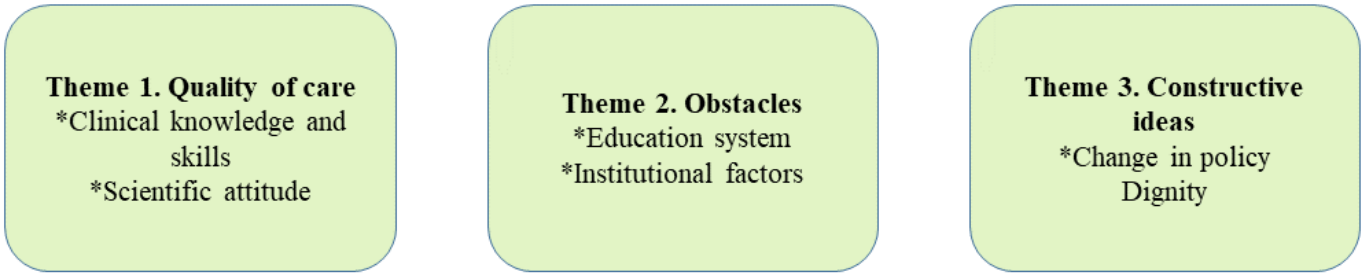

Figure 1. Main themes and sub-themes emerging from the interviews.

Theme 1. Quality of care

The participants emphasized that specialization would bring qualifications to the nurse. The statements of the participants under this theme were grouped under two sub-themes: (a) clinical knowledge and skills, (b) scientific attitude.

a. Clinical knowledge and skills

Most participants (16 participants) reported that specialization would provide nurses with knowledge, power and self-confidence. The statements of some participants regarding this issue are as follows:

"Specialization is knowing more about any subject." (P10, Female, Clinician)

"If there is a specialist nurse in the service, other nurses can consult the specialist nurse on the issues they are struggling with." (P3, Female, Student)

"… specialist nurses do research, make better observations, and then find solutions to problems. They lead other nurses." (P13, Female, Academician)

"Specialization will improve our self-confidence and image in society." (Participant 1, Male, Clinician)

Almost all participants (18 participants) reported that specialization would improve nurses' clinical skills. The statements of some participants regarding this issue are as follows:

"Specialist nurses are better equipped, able to apply what they know theoretically more easily, and use their theoretical knowledge more …. in short they are clinically more effective and competent." (Participant 1, Male, Clinician)

"They can make ethical and correct decisions. I think a specialist nurse is a nurse who can maintain theory and practice together." (Participant 14, Female, Student)

Some participants (5 participants) reported that specialization would improve the quality of patient care.

The statements of some participants regarding this issue are as follows:

"Patients can receive more information and better care from the specialist nurse. That's why I think it has many advantages for the patient." (Participant 16, Female, Academician)

"Our approach to the patient and our knowledge and skills will be better." (Participant 12, Male, Clinician)

b. Scientific Attitude

Some participants (6 participants) stated that specialization would give nurses a scientific attitude. The statements of some participants regarding this are as follows:

"Specialization…in fact brings evidence-based problem solving rather than trial and error." (Participant 13, Female, Academician)

"…specialized nurses do research. When they read an article, they have a wealth of knowledge. Maybe that information will work for their patients." (Participant 20, Female, Student)

"For example, writing a thesis gives people a different scientific perspective. This thesis makes a difference in the nurse's approach to the disease or the care it provides." (Participant 4, Female, Academician)

Theme 2. Obstacles

Some of the statements of the participants about the obstacles to specialization were gathered under the theme of obstacles. The statements of the participants were grouped under two sub-themes: (a) education system, (b) institutional factors.

a. Education System

Most participants (12 participants) stated that some factors about education and the examination system are the most important obstacles to specialization. According to participants, the exams that must be passed to start postgraduate education as one of the obstacles to specialization for not measuring nursing knowledge and skills. The statement of one of the participants regarding this is as follows:

"… I wish they would ask more relevant questions about work experience." (Participant 17, Female, Clinician)

One of the participants indicated the content of graduate education as one of the obstacles to specialization for being designed only to train academicians.:

"Specialist nurses are unhappy when they cannot join the academy after graduation… Why? Because postgraduate education schools the clinician to become an academician." (Participant 13, Female, Academician)

b. Institutional Factors

Most participants (16 participants) stated the institutional factors as obstacles to specialization. These factors are listed as working conditions, lack of the rewarding system and inadequate financial support.

Some conditions such as intense and tiring working conditions and being unable to get permission from the institution for postgraduate education can be an obstacle to specialization. The statements of some participants regarding this are as follows:

"There are many reasons for not specializing; Due to workload and lack of time, individuals cannot motivate themselves in this regard." (Participant 7, Female, Academician)

"There may be a shortage of staff. We have a real shortage problem in the field, so we, as nurses, come to 11-12-13 shifts per month. Time is not enough." (Participant 12, Male, Clinician)

"…individual's reluctance, professional fatigue, intensity of working conditions... Besides, the institution needs to support... They can grind you by saying 'What will you do after you graduate?" (Participant 4, Female, Academician)

"…administrative pressures ... A nurse wants to be a graduate student, but they are trying to prevent it because they do not want them to study." (Participant 19, Male, Academician)

"…why do we have to rant at people to arrange our night shifts?" (Participant 11, Female, Clinician)

Most participants (13 participants) stated the lack of recognition and reward opportunities such as promotion and salary increase as one of the obstacles to specialization. The statements of some participants regarding this issue are as follows:

"I graduated with my master's degree, but my title is still registered as a nurse. I think that there is not enough staff in specialist nursing." (Participant 17, Female, Clinician)

"Specialist cadres should be opened within the Ministry. … Specialist nurses are given very little space in hospitals." (Participant 2, Female, Academician)

"…it is not preferred because of the thought that 'I will spend effort but it will not be useful'." (Participant 18, Female, Clinician)

"…here there is not much difference in salary between a regular nurse and a specialist nurse. … And that makes you think 'Why did I study?'" (Participant 11, Female, Clinician)

Some participants (3 participants) stated lack of financial support as one of the obstacles to specialization. Some of their statements regarding this issue are as follows:

"Nurses' salaries are good, the working environment is good, you can be appointed easily, what is the need for specialization?" (Participant 6, Male, Student)

"Our families advise us to 'become a civil servant, move on, build your life' and a life without such economic problems. …"(Participant 15, Male, Student)

"Along with specialization, our participation in scientific

congresses and symposiums is also increasing. All of this comes at a cost, of course." (Participant 16, Female, Academician)
"I finished my master's but there was little difference in my salary. It never paid for my expense." (Participant 17, Female, Clinician)

Theme 3. Constructive ideas
The participants' put forward some insights and ideas to improve the specialization in nursing. Their insights and ideas are related to health and education policies. These were gathered under the theme of constructive ideas. Their statements regarding this issue were grouped under two sub-themes: (a) change in policy and (b) dignity.

a. Change in policy
Most participants (18 participants) suggested policy-making in education, the examination system, and health for developing specialization. The participants recommended academic-clinic collaboration, and to put into action nursing regulation. Some statements of the participants are as follows:
"So it should be like this: By law, nurses studying to specialize should have shorter working hours. They should be supported by laws and not be under the initiative of institutions." (Participant 11, Female, Clinician)
"…it is necessary to give them a good position in the hospital, maybe with the nursing regulation …" (Participant 13, Female, Academician)
One of the participants emphasized the collaboration of academicians and clinicians to develop specialization in nursing and stated that the academician should also appear in the clinic:
"You can be a lecturer at the university and work at the hospital simultaneously. ... If you do not work in a clinical environment but give education at the university, you cannot provide a clinical benefit in the hospital environment but theoretical information. That's specialization." (Participant 1, Male, Clinician)

b. Dignity
Most participants (13 participants) reported that nurses should be encouraged to be promoted, and to have respect and reputation in the clinic during the specialization process. The statements of some participants regarding this are as follows:
"… let the nurse be the director of the clinic because she has a postgraduate education. This situation will both satisfy and empower nurses in graduate school." (Participant 13, Female, Academician)
"There should be moral rather than material incentives for specialization." (Participant 21, Male, Student)

DISCUSSION

Specialization in nursing is an important issue that has the potential to closely affect the quality of nursing care and health level indicators, and therefore health policies, which concern the nursing education system.

The participants interviewed within the study stated that specialization increases nursing knowledge, resulting in bringing power, self-confidence, and leadership qualities to the person. According to a study, specialist nurses were at a sufficient level regarding critical thinking, clinical care, leadership, interpersonal relations, education, and counseling skills.[33] In another study, politicians in Ireland noted that specialist nurses have the capacity to lead, particularly at a strategic level, and play a central role in improving the quality and continuity of care.[27] On the other hand, some reports implicate the knowledge and skills of nurses would improve with specialization.[34] According to a study covering South American countries, specialist nurses provide professional patient care, improve nursing practices, and also support the education of nurses and other health professionals by showing leadership characteristics.[35] Considering the results of studies evaluating the knowledge and skills of specialist nurses in the literature, it can be said that the ideas and opinions of the participants interviewed in this study about the contributions of specialization to the profession are consistent with the literature.

The participants in our study reported that through specialization, the clinical skills of the nurses can increase, the care can be carried out based on evidence, and the quality of nursing care can increase. In the study conducted by Atalan et al., it was also determined that the employment of specialist nurses in the emergency service shortens the waiting time in the emergency department and increases the number of patients whose treatment is completed.[36] When nurses learn about the scientific process, they carry out their care and practices based on evidence.[37] As per a study, the professional values of nurses who received postgraduate education were higher than those who did not[38], and the increase in the level of education positively contributed to the clinical decision-making and application skills[39] of nurses. Accordingly, it can be said that the predictions of the participants interviewed within the scope of the study about the contribution of specialization to nursing care are compatible with the literature.

In our study, the participants explained the barriers to specialization at a managerial level rather than individually.

The process of specialization in nursing is carried out differently in many countries, and various obstacles are encountered both in the education and employment processes.[29,40] Although there are specialization programs in some universities in Europe, there is a lack of knowledge about the definition, purpose and training process of specialist nursing.[34,41] Specialist nurses in Africa stated that they encountered obstacles in the employment process and that their wages were insufficient.[29] In a systematic review, specialist nurses remarked that there are various obstacles in the education process, such as examination, employment, management, working conditions and institutional factors.[40] In another study, the obstacles to specialization were explained as both individual and professional reasons; Also, it was reported that the nurse left duty and attended graduate education courses, which was wearisome.[42] According to these results, it can be said that many factors such as managers' attitudes, working conditions, personal reasons may create obstacles to specialization in nursing, and the factors that prevent or slow down specialization should be addressed from a broad perspective.

The participants made some suggestions for the development of specialization in parallel with the obstacles. When the participants in our study were asked about their recommendations for specialization, they mentioned policy-making, decision-making, and providing incentives and support based on management. Similarly, in a qualitative study, it was emphasized that the role of specialist has both clinical and managerial responsibilities and that nurses with graduate education should have the title of a specialist nurse.[43] According to another study, the emergence of new specialities in nursing is inevitable with the developing science and technology; Therefore, the opportunities for specializing should be expanded, and relevant programs should be strengthened[28] Additionally, in this study, the participants suggested a number of policies that provide promotion and employment opportunities for the development of specialization in nursing and increase the prestige of the nurse in the process of specialization.

In this study, the participants have faith in the fact that specialization in nursing would increase the quality of health care and nursing, and believe the health care system and working conditions prevent specialization. They emphasize the need to develop policies for the betterment of specialization. As per these results, it is recommended to raise awareness about specialization in nursing during undergraduate education and in-service training. Based on the results of this study, which provides preliminary information for the studies on this subject, designing quantitative research on the subject is recommended. Besides, it is recommended to conduct randomized controlled studies evaluating the effect of nursing care provided by clinical nurse specialists. In addition, carrying out prospective studies with the cooperation of the academia and clinic and studies that allow the production of policies by nursing associations and non-governmental organizations for removing the barriers to specialization is recommended.

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Hemşirelik Öğrencilerinin Mesleki Bağlılıkları ile Manevi Bakım Yeterlilikleri Arasındaki İlişki

The Relationship Between Professional Commitment and Spiritual Care Competencies of Nursing Students

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ÖZ

Amaç: Bu araştırma, hemşirelik öğrencilerinin mesleki bağlılıkları ile manevi bakım yeterlilikleri arasındaki ilişkinin incelenmesi amacıyla yapılmıştır.

Yöntemler: Bu tanımlayıcı ve ilişki arayıcı araştırmanın evrenini 2022–2023 eğitim öğretim yılında bir devlet üniversitesinin hemşirelik bölümünde okuyan tüm öğrenciler (n=415) oluşturmuştur. Çalışmaya katılmayı kabul eden toplam 267 öğrenci çalışma kapsamına alınmıştır. Araştırmada veriler, tanıtıcı bilgi formu, Hemşirelikte Mesleğe Bağlılık Ölçeği ve Manevi Bakım Yeterlilik Ölçeği kullanılarak toplanmıştır.

Bulgular: Öğrenciler, Hemşirelikte Mesleğe Bağlılık Ölçeği'nden ortalama 75,79 ± 12,21 (min. 26,00 - maks. 104,00), Manevi Bakım Yeterlilik Ölçeği'nden ortalama 102,11±24,09 (min. 27,00 - maks. 135,00) puan almıştır. Kadın öğrencilerin hemşirelik mesleğine bağlılıklarının ve manevi bakım yeterliliklerinin, erkek öğrencilere göre anlamlı olarak daha fazla olduğu saptanmıştır. Mesleğini seven öğrencilerin, hemşirelik mesleğine bağlılıkları (*P* <,01) ve manevi bakım yeterlilikleri (*P* <,05) anlamlı olarak daha yüksek olduğu bulunmuştur. Çalışmada öğrencilerin mesleğine bağlılıkları arttıkça, manevi bakım yeterliliklerinin de arttığı belirlenmiştir.

Sonuç: Hemşirelik öğrencilerinin hemşirelik mesleğine bağlılık düzeyleri arttıkça manevi bakım yeterliliklerinin de arttığı belirlenmiştir.

Anahtar Kelimeler: Meslek, bağlılık, manevi, bakım, hemşirelik öğrencisi, yeterlilik

ABSTRACT

Objective: This research examined the relationship between nursing students' professional commitment and spiritual care competencies.

Methods: The population of this cross-sectional study consisted of all students (n=415) studying in the nursing department of a state university in the 2022-2023 academic year. A total of 267 students who agreed to participate were included in the study. The study collected data using the introductory information form, the Nursing Professional Engagement Scale, and the Spiritual Care Competency Scale. To conduct the research, written permission was obtained from the ethics committee, the institution where the research was conducted, and the students.

Results: Students mean 75.79 ± 12.21 (min. 26.00 – max. 104.00) from the Nursing Professional Engagement Scale, 102.11±24.09 (min. 27.00 – max 135.00). It was determined that female students' commitment to the nursing profession and their spiritual care competence were significantly higher than male students. It was determined that

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fourth-year students and students, who chose the nursing profession voluntarily had a significantly higher commitment to the nursing profession. The commitment to nursing and spiritual care competencies of students who love their profession were significantly higher. In our study, it was determined that as students' commitment to their profession increased, their spiritual care competencies also increased.

Conclusion: It has been determined that as the commitment of nursing students to the nursing profession increases, their spiritual care competencies also increase.

Keywords: Profession, commitment, spiritual, care, nursing student, relationship

GİRİŞ

Mesleki bağlılık, sadakat, bir mesleği devam ettirme isteği ve mesleğin belirli problemlerine ve güçlüklerine karşı sorumluluk duygusu olarak tanımlanması ile birlikte bireyin mesleği ile fiziksel, zihinsel ve duygusal bir bağ kurmasını sağlayan tutumdur.[1,2] Hemşirelikte mesleki bağlılık ise, hemşirelik eğitiminin alınmasıyla başlayıp, hemşirelik mesleğinin icra edildiği zamanda da devam eden bir süreçtir. Bir hemşirenin mesleğinin değerlerini kabul etmesi, bu değerleri gerçekleştirmek için çaba göstermesi, meslekte kendi becerilerini geliştirmek istemesi, mesleğini devam ettirme hususunda kararlı ve azimli olması hemşirelikte mesleki bağlılık olarak tanımlamaktadır.[3,4]

Hemşirelikte mesleki bağlılık iş tatmini, öz-yeterlilik, işe devam etme durumu, hasta güvenliği ve bakım kalitesini doğrudan etkileyen bir faktördür.[4] Hemşireler arasında mesleki bağlılığın yüksek olması işten ayrılma isteğinde azalmayı, mesleki yeterlilik ve iş doyumunda artışı, hasta bakım kalitesinde ve mesleki statüde yükselmeyi beraberinde getirmektedir.[2,5] Hemşirelerde olumlu profesyonel davranışın temel kaynağı olarak öne çıkan mesleki bağlılık, hasta bakımının kalitesindeki etkisi nedeniyle hastane ve aile sağlığı merkezleri, dispanserler, özel sağlık kuruluşları, poliklinikler gibi sağlık bakım merkezleri için hayati önem taşımaktadır.[1] Cerrahi kliniklerinde çalışan hemşirelerle yapılan bir çalışmada, hemşirelerin mesleğe bağlılıklarının artmasına bağlı olarak bakım davranışlarının da arttığı gözlemlenmiştir.[6] Eğitim hayatında mesleki bağlılık düzeyleri yüksek olan hemşirelik öğrencilerinin, mezun olduktan sonra da yüksek mesleki bağlılık düzeyine sahip olduğuna inanılmaktadır.[2]

Hemşirelik, sağlık çalışanları arasında bireye primer bakım veren, onu tüm yönleri ile ele alan ve tüm gereksinimlerini karşılayan profesyonel bir meslektir. Bu nedenle hemşirelik mesleğini icra edebilmek için mesleğin maddi getirisinin ötesinde derin bir mesleki bağlılık duygusuna sahip olmak gerekmektedir.[7,8] Mesleki bağlılık duygusuna sahip hemşireler, hastalara bütüncül bakım verirken hastayı eksiksiz bir bakım modeli kapsamında tüm yönleri ile ele almaya özen göstermektedir. Bu bütüncül yaklaşımda göz önünde bulundurulması gereken en önemli bileşenlerden biri manevi bakımdır.[9]

Manevi bakım, travma, hastalık veya üzüntüyle karşı karşıya olan bireylerde insan ruhunun ihtiyaçlarının tanınması ve bunlara yanıt verilmesi olarak tanımlanmaktadır.[10] Bütünsel bakım yaklaşımının temel yönlerinden biri olan manevi bakım, hastanın yaşam kalitesiyle önemli ölçüde ilişkilidir ve bu durum onu hemşirelik bakımının hayati bir unsuru haline getirir.[11] Manevi bakımın amacı, hastaların manevi düzeydeki zorluklarını hafifletmek ve hayatın anlamını, kendini gerçekleştirmeyi, umudu, yaratıcılığı, inancı, güveni, huzuru, duayı, sevme ve affetme becerisini kazanmaya yardım etmektir.[12,13]

Literatür incelendiğinde hemşirelik öğrencilerinde mesleki bağlılık ve manevi bakım yeterliliği ile ilgili birçok çalışma[2,5,10] bulunmasına rağmen her ikisinin değerlendirildiği bir çalışmaya rastlanmamıştır. Bu çalışmada hemşirelik öğrencilerinin mesleki bağlılıkları ile manevi bakım yeterliliklerinin birlikte ele alınması bu çalışmanın özgün değerini oluşturmaktadır.

AMAÇ

Bu çalışmanın amacı hemşirelik öğrencilerinin mesleki bağlılıkları ile manevi bakım yeterlilikleri arasındaki ilişkinin incelenmesidir.

Araştırma Soruları

1. Hemşirelik öğrencilerinin mesleki bağlılık düzeyi nedir?
2. Hemşirelik öğrencilerinin manevi bakım yeterlilikleri düzeyi nedir?
3. Hemşirelik öğrencilerinin mesleki bağlılık düzeyi ile ilişkili faktörler nelerdir?
4. Hemşirelik öğrencilerinin manevi bakım yeterlilikleri ile ilişkili faktörler nelerdir?
5. Hemşirelik öğrencilerinin mesleki bağlılık düzeyi ile manevi bakım yeterlilikleri arasındaki ilişki nasıldır?

YÖNTEMLER

Araştırmanın Zamanı ve Tipi

Bu araştırma, Şubat - Mart 2023 tarihleri arasında yürütülen tanımlayıcı ve ilişki arayıcı tasarımda bir çalışmadır.

Araştırmanın Evreni ve Örneklemi

Araştırmanın evrenini 2022-2023 eğitim öğretim bahar yarıyılında bir devlet üniversitesinin Sağlık Bilimleri Fakültesi hemşirelik bölümüne kayıtlı olan 415 öğrenci oluşturmaktadır. Araştırmada örneklem seçimine gidilmeyerek, tam sayım yöntemi ile çalışma evreninin tamamına ulaşılması amaçlanmıştır. Örneklemeye, araştırmaya katılmayı kabul eden, araştırmanın yapıldığı yarıyılda hemşirelik bölümüne kayıtlı olan ve araştırmanın yürütüldüğü tarih aralığında derslere aktif olarak katılan öğrenciler dâhil edilmiştir. Araştırma, dâhil edilme kriterlerini karşılayan 267 öğrenci (%64,38) üzerinde yürütülmüştür. Ulaşılabilen örneklem büyüklüğü için elde edilen post-hoc güç G-Power 3.1.9.7 paket programı aracılığıyla hesaplanmıştır. Çalışmanın gücü 0,05'lik hata payı, 267 örneklem hacmi, yüksek düzeyde (d=2,81) etki büyüklüğü ile tek gruplu örneklemde yapılan analizde %100 olarak belirlenmiş olup, örneklem sayısının yeterli olduğu belirlenmiştir.

Veri Toplama Araçları

Veriler, araştırmacılar tarafından araştırma amacı doğrultusunda oluşturulan "Tanıtıcı Bilgi Formu", "Hemşirelikte Mesleğe Bağlılık Ölçeği" ve "Manevi Bakım Yeterlilik Ölçeği" ile elde edilmiştir.

Tanıtıcı Bilgi Formu: Araştırmacılar tarafından literatür taraması sonucunda[13-18] araştırma amacı doğrultusunda hazırlanan bu form, öğrencilerin tanıtıcı özelliklerini, mesleğe yönelik tutum ve yaklaşımlarını sorgulayan toplam 11 sorudan oluşmaktadır.

Hemşirelikte Mesleğe Bağlılık Ölçeği (HMBÖ): Hemşirelerin mesleğe bağlılık düzeylerinin belirlenmesi için, 2000 yılında Lu ve arkadaşları tarafından geliştirilen[19] ölçeğin Türkçe geçerlik ve güvenilirlik çalışması Çetinkaya ve arkadaşları tarafından 2015 yılında yapılmıştır. Dörtlü Likert tipindeki (1-Hiç katılmıyorum, 4-Tamamen katılıyorum) ölçek 26 madde ve 3 alt boyuttan (çaba gösterme istekliliği, meslek üyeliğini sürdürme, hedef ve değerlere inanç) oluşmaktadır. Ölçeğin tamamından alınacak en düşük puan 26, en yüksek puan ise 104'dür. Alt boyutlarından alınabilecek en düşük ve en yüksek puanlar ise, "çaba gösterme istekliliği" için 13-52, "meslek üyeliğini sürdürme" için 8-32, "hedef ve değerlere inanç" için 5-20 puan arasındadır. Ölçeğin tamamından ve alt boyutlarından alınan puanın artması, bireylerin mesleğe bağlılıklarının yüksek olduğunu ifade etmektedir. Ölçeğin genelinin Cronbach Alpha katsayısı 0,90; alt boyutlarının ise sırası ile 0,88, 0,77 ve 0,67'dir.[20] Bu çalışmada ölçeğin genelinin Cronbach Alpha katsayısı 0,89; alt boyutlarının ise sırası ile 0,92, 0,88 ve 0,67 olarak tespit edilmiştir.

Manevi Bakım Yeterlilik Ölçeği (MBYÖ): Hemşirelerin manevi bakımla ilgili yetkinlik düzeyini belirlemek amacıyla Leeuwen ve ark.[21] tarafından geliştirilen ölçeğin, Türkçe geçerlik ve güvenilirlik çalışması Daghan ve ark.[22] tarafından 2019 yılında yapılmıştır. Beşli Likert tipindeki (1-Kesinlikle katılmıyorum, 5- Tamamen katılıyorum) ölçek, "manevi bakımın değerlendirilmesi ve uygulanması", "manevi bakımda profesyonellik ve hasta danışmanlığı" ve "hastanın maneviyatına karşı tutumu ve iletişimi" olmak üzere 3 alt boyutta toplam 27 maddeden oluşmaktadır. Alınan puanın yüksek olması manevi bakımla ilişkili hemşirelerin yeterlilik algısının olduğunu göstermektedir. Ölçeğin genelinin Cronbach Alpha katsayısı 0,97; alt boyutlarının ise sırası ile 0,94, 0,96 ve 0,97'dir.[22] Bu çalışmada ölçeğin genelinin Cronbach Alpha katsayısı 0,99; alt boyutlarının ise sırası ile 0,96, 0,98 ve 0,95 olarak belirlenmiştir.

Verilerin Toplanması

Çalışma için gerekli etik kurul ve kurum izinleri alındıktan sonra veriler araştırmacılar tarafından sınıf ortamında öğrencilere araştırma hakkında birebir açıklama yapıldıktan sonra, cep telefonlarına gönderilen anket linki aracılığıyla online olarak toplanmıştır. Öğrenciler anket formuna onam verdikten sonra ulaşabilmişlerdir. Soruların cevaplanması yaklaşık 15 dakika sürmüştür.

Araştırmanın Etik Yönü

Çalışmanın yürütülebilmesi için Ağrı İbrahim Çeçen Üniversitesi Bilimsel Araştırmalar Etik Kurulu'ndan etik kurul onayı (Tarih: 27.01.2023, Sayı: 63258) ve üniversitenin Sağlık Bilimleri Fakültesi Dekanlığı'ndan kurum izni (Tarih:15.02.2023, Sayı:6469) alınmıştır. Katılımcıların Google formlar aracılığıyla onamları alındıktan sonra katılımcılar anket formuna erişim sağlayabilmiştir. Ayrıca araştırmada kullanılan ölçekler için ölçeklerin geçerlik ve güvenilirlik çalışmasını yapan yazarlardan ölçek kullanım izni alınmıştır.

Verilerin Analizi

Çalışma verileri değerlendirilirken tanımlayıcı istatistiksel metotların (frekans, ortalama, standart sapma, minimum, maksimum) yanı sıra ölçeklerden elde edilen puanların dağılımında Skewness ve Kurtosis değerleri incelenmiş, değerlerin +1.5 -1.5 aralığında[23] olduğu ve normal dağılımdan sapma olmadığı görülmüştür. Normal dağılan

ölçüm puanları için, iki bağımsız grup ortalamalarının karşılaştırılmasında "t-testi", üç ve daha çok bağımsız grup ortalamalarının karşılaştırılmasında "Anova testi"; anlamlı bulunan grupların çoklu karşılaştırmalarında "Tukey testi" kullanılmıştır. Ayrıca iki sayısal ölçüm puanları arasındaki ilişkinin yönünü ve şiddetini gösteren Pearson korelasyon analizi yapılmıştır. İstatistiksel anlamlılık düzeyi *P* <,05 olarak alınmıştır.

BULGULAR

Çalışmaya katılan öğrencilerin %61'i (n= 163) kadın cinsiyettedir ve yaş ortalaması 20,87 ± 2,28 (min. 18,00; maks. 39,00)'dir. Öğrenciler HMBÖ ölçeğinden ortalama 75,79 ± 12,21 (min. 26,00- maks. 104,00), MBYÖ ölçeğinden ortalama 102,11 ± 24,09 (min. 27,00- maks. 135,00) puan almıştır.

Tablo 1. Hemşirelik Öğrencilerinin Mesleğe Bağlılıkları ve Manevi Bakım Yeterliliklerinin Tanıtıcı Özelliklerine Göre Dağılımı

Tanıtıcı Özellikler	n	Hemşirelikte Mesleğe Bağlılık Ölçeği		Manevi Bakım Yeterlilik Ölçeği	
		Ort ± SS	t / F; *P*	Ort ± SS	t / F; *P*
Cinsiyet					
Kadın	163	77,18 ± 12,25	2,354	104,67 ± 22.26	2,112
Erkek	104	73,60 ± 11,88	**,019**	98,09 ± 26,31	**,036**
Yaş grup					
20 yaş ve altı	131	74,34 ± 12,97	-1,909	101,64 ± 24,98	-0,308
21 yaş ve üstü	136	77,18 ± 11,30	,057	102,55 ± 23,28	,759
Gelir algısı					
Gelir giderden az	124	76,08 ± 13,93	0,253	102,08 ± 24,09	0,002
Gelir gidere eşit	131	75,34 ± 10,35	,777	102,09 ± 24,10	,998
Gelir giderden fazla	12	77,58 ± 12,72		102,58 ± 26,03	
Anne eğitim düzeyi					
Okuryazar değil	97	75,28 ± 10,97		103,96 ± 19,59	
Okuryazar	30	75,06 ± 13,99	0,595	99,40 ± 29,96	0,536
İlkokul	86	77,22 ± 11,74	,658	100,22 ± 25,10	,658
Ortaokul ve üzeri	54	74,81 ± 14,02		103,29 ± 26,42	
Baba eğitim düzeyi					
Okuryazar değil	21	78,90 ± 11,65		104,71 ± 20,68	
Okuryazar	24	71,91 ± 8,71	1,336	105,54 ± 22,68	0,765
İlkokul	92	76,71 ± 13,31	,257	103,73 ± 23,98	,549
Ortaokul	58	74,25 ± 12,76		97,75 ± 28,42	
Lise ve üzeri	72	76,22 ± 11,25		101,63 ± 21,82	
Yaşanılan yer					
İl	127	75,12 ± 13,05	1,278	102,36 ± 25,28	0,052
İlçe	94	75,41 ± 11,72	,280	102,28 ± 24,61	,949
Köy	46	78,39 ± 10,57		101,06 ± 19,66	
Mezun olunan lise türü					
Anadolu lisesi (a)	202	75,23 ± 11,84		100,22 ± 24,64	
Fen lisesi (b)	30	73,40 ± 15,00	2,990	103,76 ± 26,74	2,310
Sağlık meslek lisesi (c)	15	78,93 ± 11,76	**,032**	112,20 ± 18,25	,077
Diğer (d)	20	82,60 ± 9,46		111,15 ± 12,52	
Grup içi karşılaştırma		(d-a) *P* = ,048 (d-b) *P* = ,043			
Toplam	267	75,79 ± 12,21		102,11 ± 24,09	

Ort.; Ortalama, SS; Standart Sapma, t; t-testi, F; Anova testi

Bu çalışmada; cinsiyet, mezun olunan lise türü, sınıf, bölümü seçme nedeni, mesleği isteyerek seçme durumu, mesleği seçme kararında etkisi olan kişiler, mesleği sevme durumu öğrencilerin mesleki bağlılık düzeyini etkileyen faktörler olarak belirlenmiştir. Kadın öğrencilerin ve mesleğini seven öğrencilerin hemşirelik mesleğine bağlılıkları anlamlı olarak daha fazladır (her biri için *P* <,05). Sosyal bilimler lisesi, imam hatip lisesi, düz lise, özel lise ve

meslek lisesi gibi diğer lise türlerinden mezun olan öğrencilerin hemşirelik mesleğine bağlılıkları, anadolu lisesi ve fen lisesinden mezun olan öğrencilerden daha yüksektir (Tablo 1; her biri için *P* <,05). Dördüncü sınıf öğrencilerin hemşirelik mesleğine bağlılıkları anlamlı olarak daha yüksektir (*P* <,05). Mesleğe ilgi duydukları için hemşirelik bölümünü tercih eden öğrencilerin mesleğe bağlılıkları, iş bulma olanağının fazlalığı nedeniyle hemşirelik bölümünü tercih eden öğrencilere göre daha fazladır (*P* <,01). Hemşirelik mesleğini isteyerek seçen öğrencilerin hemşirelik mesleğine bağlılıkları anlamlı olarak daha yüksektir (*P* <,01). Kendi kararı ile hemşireliği tercih eden öğrencilerin mesleğe bağlılıkları aile yönlendirmesi ya da çevre etkisi ile seçen öğrencilere göre anlamlı olarak daha yüksektir (her biri için *P* <,05).

Tablo 2. Hemşirelik Öğrencilerinin Tanıtıcı Özeliklerine Göre Mesleğe Bağlılıkları ve Manevi Bakım Yeterliliklerinin Karşılaştırılması

Mesleğe Yönelik Tutum ve Yaklaşımlar ile İlgili Değişkenler	n	Hemşirelikte Mesleğe Bağlılık Ölçeği		Manevi Bakım Yeterlilik Ölçeği	
		Ort ± SS	t / F; *P*	Ort ± SS	t / F; *P*
Sınıf					
1. sınıf (a)	92	75,28 ± 13,36		99,89 ± 25,56	
2. sınıf (b)	65	75,50 ± 11,49	2,651	101,50 ± 27,00	1,267
3. sınıf (c)	65	73,75 ± 11,46	**,049**	101,60 ± 22,07	,286
4. sınıf (d)	45	80,17 ± 11,06		108,26 ± 18,38	
Grup içi karşılaştırma		(c-d) *P* = ,033			
Hemşirelik bölümünün üniversite sınavına kaçıncı girişte kazanıldığı					
İlk girişte	80	76,65 ± 13,53	2,873	103,96 ± 21,24	0,341
İkinci girişte	141	76,57 ± 10,85	,058	101,42 ± 25,16	,712
Üç ve üstü girişte	46	71,89 ± 13,23		101,00 ± 25,68	
Hemşirelik bölümünün kaçıncı sırada tercih edildiği					
1. sırada	150	76,65 ± 12,91	2,133	103,85 ± 23,62	0,953
2-10. sırada	83	75,83 ± 11,25	,120	100,37 ± 23,89	,387
11. ve üzeri sırada	34	71,88 ± 10,73		98,67 ± 26,57	
Hemşirelik bölümünü seçme nedeni					
İş bulma olanağının fazlalığı (a)	158	74,72 ± 12,90		99,48 ± 25,78	
Mesleğe ilgi duyma (b)	62	81,56 ± 10,69	7,212	107,58 ± 22,00	2,369
Üniversite sınav puanı (c)	40	71,82 ± 8,08	**<,001**	101,82 ± 19,60	,071
Aile isteği / baskısı (d)	7	71,28 ± 12,78		114,71 ± 15,42	
Grup içi karşılaştırma		(a-b) *P* = ,001			
Mesleği isteyerek seçme durumu					
İstemeden	108	69,93 ± 10,90	-7,017	99,28 ± 25,00	-1,584
İsteyerek	159	79,76 ± 11,45	**<,001**	104,03 ± 23,33	,114
Mesleği seçme kararında etkisi olan kişiler					
Aile yönlendirmesi (a)	135	73,66 ± 11,59	7,416	102,59 ± 23,00	1,340
Kendi kararı (b)	119	78,81 ± 12,54	**,001**	102,73 ± 25,94	,264
Çevre(Öğretmen, Sağlık çalışanı)(c)	13	70,15 ± 9,02		91,46 ± 14,48	
Grup içi karşılaştırma		(a-b) *P* = ,002 (b-c) *P* = ,036			
Mesleği sevme durumu					
Sevmiyor	84	67,02 ± 9,56	-9,615	95,08 ± 27,27	-3,289
Seviyor	183	79,81 ± 11,15	**<,001**	105,33 ± 21,81	**,003**
Toplam	267	75,79 ± 12,21		102,11 ± 24,09	

Ort.;Ortalama, SS; Standart Sapma, t-testi, F; Anova testi

Bu çalışmada; cinsiyet ve mesleği sevme durumu öğrencilerin manevi bakım yeterliliklerini etkileyen faktörler olarak belirlenmiştir. Kadın öğrencilerin ve mesleğini seven öğrencilerin manevi bakım yeterlilikleri (*P* <,05) anlamlı olarak daha yüksektir (Tablo 2). Öğrencilerin hemşirelik mesleğine bağlılıkları arttıkça manevi bakım yeterlilikleri de artmaktadır (*P* <,01). Öğrencilerin manevi bakım yeterliliği arttıkça, hemşirelik mesleğine yönelik çaba gösterme isteklilikleri ile meslekteki hedef ve değerlere inançları da artmaktadır (her biri için *P* <,01; Tablo 3).

Tablo 3. Hemşirelik Öğrencilerinin Hemşirelikte Mesleğe Bağlılık Ölçeği, Manevi Bakım Yeterlilik Ölçeği ve Alt Boyutlarından Aldıkları Puan Ortalamaları ve Korelasyon Analizi

Ölçekler ve alt boyutları	Ort ± SS	Min - Maks	1	1.1	1.2	1.3	2	2.1	2.2	2.3
1. Hemşirelikte Mesleğe Bağlılık Ölçeği	75,79 ± 12,21	26,00-104,00	1							
1.1. Çaba gösterme istekliliği	37,64 ± 7,89	13,00-52,00	,836**	1						
1.2. Meslek üyeliğini sürdürme	23,22 ± 5,92	8,00-32,00	,576**	,067	1					
1.3. Hedef ve değerlere inanç	14,92 ± 2,88	5,00-20,00	,762**	,664**	,199**	1				
2. Manevi Bakım Yeterlilik Ölçeği	102,11 ± 24,09	27,00-135,00	,519**	,534**	,108	,513**	1			
2.1. Manevi bakımın değerlendirilmesi ve uygulanması	22,47 ± 5,78	6,00-30,00	,529**	,535**	,139*	,489**	,945**	1		
2.2. Manevi bakımda profesyonellik ve hasta danışmanlığı	56,11 ± 13,62	15,00-75,00	,500**	,525**	,090	,494**	,985**	,904**	1	
2.3. Hastanın maneviyatına karşı tutumu ve iletişimi	23,51 ± 5,66	6,00-30,00	,464**	,460**	,103	,493**	,919**	,822**	,861**	1

* *P* < ,05; ** *P* < ,01 Ort.; Ortalama, SS; Standart Sapma.

TARTIŞMA

Hemşirelik öğrencilerinin mesleki bağlılık düzeyleri ile manevi bakım yeterlilikleri arasındaki ilişkinin incelenmesi amacıyla yapılan çalışmanın bulguları literatür doğrultusunda tartışılmıştır.

Araştırmada hemşirelik öğrencilerinin HMBÖ ölçeğinden aldığı puan ortalaması 75,79 ± 12,21 olarak belirlenmiştir. Literatür incelendiğinde; yapılmış olan çalışmalarda HMBÖ ölçeğinden alınan toplam puan ortalamasının 76.23±11 ile 66,28±8,99 aralığında değişkenlik gösterdiği gözlemlenmiştir.[3-5,8,17,24,25] Hemşirelik öğrencileriyle yapılan başka bir çalışmada HMBÖ ölçeğinden alınan toplam puan ortalamasının staj öncesi 56,3±10,1 olduğu, staj sonrası ise 58,1±9,5 olduğu belirlenmiştir.[26] Daha önce yapılan çalışma sonuçlarına göre HMBÖ ölçeğinden alınan puan ortalamalarının genel olarak bu çalışma sonuçları ile benzerlik gösterdiği ve hemşirelikte mesleğe bağlılığın iyi düzeyde olduğu sonucuna ulaşılabilir. Buna bağlı olarak öğrencilerin meslek hayatına başladıktan sonra mesleği benimsemeleri nedeniyle mesleğe bağlılık düzeyinde artış olacağı düşünülmektedir.

Hemşirelik öğrencilerinin MBYÖ ölçeğinden aldıkları puan ortalaması 102,11 ± 24,09 olarak belirlenmiştir. Aynı ölçüm aracı kullanılarak daha önce farklı ülkelerde yapılan araştırmalarda MBYÖ ölçeğinden alınan puan ortalamasının 10,1 ± 12,6 ile 58,5 ± 16,05 arasında değişkenlik gösterdiği gözlemlenmiştir.[14,27-29] Bu çalışmada yüksek olarak bulunan manevi bakım ölçek puan ortalamasının, ülkemizin manevi değerlere verdiği önemle ilişkili olduğu ve kültürden kültüre değişkenlik gösterebileceği düşünülmektedir. Çalışmada cinsiyetin mesleki bağlılık ve manevi bakım yeterliliğini etkileyen faktörlerden biri olduğu belirlenmiştir. Kadın öğrencilerin hemşirelik mesleğine bağlılıkları ve manevi bakım yeterliliklerinin erkek öğrencilere göre anlamlı olarak daha fazla olduğu saptanmıştır. Daha önce yapılmış araştırma sonuçları incelendiğinde; cinsiyetin mesleki bağlılığı ve manevi bakım yeterliliğini etkilemediği[3,4,13,25,30] çalışmaların yanı sıra kadın cinsiyetinde mesleki bağlılığın ve manevi bakımın daha yüksek olduğu gözlenmektedir.[8,16,29] Çalışmalardaki farklı sonuçların erkeklerin hemşirelik mesleğine kadınlarda daha sonraki yıllarda dâhil olması ve mesleği benimsemeleri, mesleğe bağlılıkları ve bakımdaki tutumlarının zamanla şekillendiği, ayrıca hemşirelik mesleğinin uzun süre kadın mesleği olarak algılanması ve kadının toplumdaki toplumsal cinsiyet rollerinden kaynaklandığı düşünülmektedir.

Araştırmaya katılan hemşirelik öğrencilerinin sınıf düzeyleri ile mesleğe bağlılık düzeyleri arasında anlamlılık saptanırken, manevi bakım düzeyleri arasında anlamlılık saptanmamıştır. Dördüncü sınıf öğrencilerin hemşirelik mesleğine bağlılık düzeylerinin diğer sınıftaki öğrencilerin mesleğe bağlılık düzeyinden anlamlı olarak daha yüksek saptanmıştır. Literatür incelendiğinde; hemşirelerde ve hemşirelik öğrencilerinde eğitim seviyesi yükseldikçe mesleğe bağlılık düzeylerinin arttığı belirlenmiştir.[17,26,31] Hemşirelik öğrencilerinin eğitim seviyesinin artması ile birlikte hemşirelik mesleğinin öneminin daha iyi anlaşıldığı ve buna bağlı olarak mesleğe bağlılıklarında arttığı düşünülmektedir.

Mesleğe ilgi duyduğu için hemşirelik bölümünü tercih eden öğrencilerin mesleğe bağlılık düzeylerinin, hemşirelikte iş bulma olanağının fazla olması nedeniyle mesleği tercih eden öğrencilere göre daha yüksek olduğu saptanmıştır. Yapılan çalışmalarda hemşirelik öğrencilerinin hemşirelik bölümünü seçme nedenleriyle hemşirelik mesleğine bağlılık düzeyleri arasındaki ilişkiyi inceleyen bir araştırmaya rastlanmamıştır. Fakat hemşirelik bölümünü tercih eden öğrencilerin daha çok başkalarına yardım etme isteği ile yani mesleğe ilgi duydukları için hemşirelik mesleğini tercih ettiği belirlenmiştir.[18,32] Bu çalışma bulgularına göre hemşirelik mesleğini isteyerek ve kendi kararı ile tercih eden öğrencilerin hemşirelik mesleğine bağlılık düzeyleri, aile yönlendirmesi ya da çevre etkisi ile tercih eden öğrencilere göre anlamlı olarak daha yüksektir. Mesleğini isteyerek seçen hemşirelerin mesleki bağlılık düzeylerinin daha yüksek olduğu belirlenmiştir.[5,17,33] Daha önce yürütülmüş olan araştırma sonuçları bu çalışma bulguları ile benzerlik göstermektedir. İş bulma, üniversiteye giriş sınavı, aile baskısı ya da yönlendirmelerin ötesinde hemşirelik mesleğini ilgi duyduğu için ve kendi kararıyla tercih eden öğrencilerin mesleki bağlılıklarının daha yüksek olduğu ve bununla birlikte mesleğe daha çok değer verdiği ve sevdiği gözlenmektedir.

Mesleğini seven öğrencilerin mesleki bağlılık düzeylerinin ve manevi bakım yeterliliklerinin anlamlı olarak daha yüksek olduğu saptanmıştır. Mesleki bağlılık, sağlık personelinde olumlu profesyonel davranışın ana kaynağı olarak bilinmektedir.[1] Hemşirelerle yapılan bir çalışmada mesleğini severek yapan hemşirelerin mesleğini sevmeyenlere göre mesleki profesyonelliklerinin daha iyi olduğu tespit edilmiştir.[34] Çin'de hemşirelik öğrencileriyle yapılan bir çalışmada hemşirelik mesleğini seven öğrencilerin sevmeyen ya da kararsız kalan öğrencilere göre daha yüksek manevi bakım yeterliliğine sahip olduğu belirlenmiştir.[35] Bu araşturmada da hemşirelik öğrencilerin hemşirelik mesleğine bağlılıkları arttıkça manevi bakım yeterliliklerinin de arttığı belirlenmiştir. Literatür incelendiğinde; mesleki bağlılık düzeyi ile manevi bakım yeterliliği arasındaki ilişkiyi inceleyen bir çalışmaya

rastlanmamıştır. Fakat Chiang ve ark.[15] hemşirelerle yaptığı bir çalışmada, hemşirelerin manevi bakıma yönelik olumlu tutumlarının, mesleki bağlılıkları ve bakımları üzerinde olumlu bir etkisinin olduğu sonucuna ulaşılmıştır. Yapılan başka bir çalışmada hemşirelerin profesyonel benlik kavramı arttıkça maneviyat, manevi bakımı algılama düzeylerinin de arttığı belirlenmiştir.[36] Hemşirelik mesleğini sevmek beraberinde mesleki bağlılık düzeyindeki artışı etkilerken, mesleki bağlılık düzeyindeki artışın da kutsal ve profesyonel bir meslek olan hemşirelikteki manevi bakım yeterliliğini de olumlu olarak etkileyebileceği düşünülmektedir.

Araştırmaya katılan öğrencilerin mesleki bağlılıklarının orta düzeyde, manevi bakım düzeylerinin ise yüksek düzeyde olduğu belirlenmiştir. Kadın öğrencilerin, son sınıf öğrencilerin, hemşirelik mesleğini isteyerek, severek ve kendi kararı ile seçen öğrencilerin hemşirelik mesleğine bağlılık düzeyleri daha yüksek bulunmuştur. Hemşirelik mesleğini mesleğe ilgi duyduğu için seçen öğrencilerin, iş olanaklarının fazla olması nedeniyle mesleği seçen öğrencilerden daha yüksek mesleki bağlılık düzeyine sahip olduğu belirlenmiştir. Kadın öğrencilerin ve mesleğini seven öğrencilerin manevi bakım yeterlilikleri anlamlı olarak daha yüksek bulunmuştur. Ayrıca öğrencilerin mesleki bağlılık düzeyleri arttıkça manevi bakım yeterliliklerinin de arttığı belirlenmiştir. Bu sonuçlar doğrultusunda hemşirelik lisans müfredatına; özellikle erkek öğrencilerin mesleki farkındalıklarını arttıracak, mesleki duyarlılık, bilgi ve beceri kazandıracak eğitimlerin eklenmesi gerekmektedir. Özellikle bireylerin kendi mesleklerini kendi istekleri ve kişisel özelliklerine göre seçmeleri için lise son sınıf öğrencilerine hemşirelik mesleğini tanıtacak meslek tanıtım günlerinin düzenlenmesi büyük önem taşımaktadır. Bununla birlikte çalışmanın farklı ve daha büyük örneklem gruplarında yapılması önerilmektedir.

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Use of Integrative Medicine Practices by Pregnant Women with Restless Legs Syndrome

Huzursuz Bacak Sendromu Olan Gebelerin Bütünleşik Tıp Uygulamalarını Kullanma Durumları

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ABSTRACT

Objective: To determine the use of integrative medicine practices in pregnant women with restless legs syndrome.

Methods: This cross-sectional descriptive study was conducted in the perinatology service and outpatient clinic of a university hospital between 2 February-11 May 2022. The study included 148 pregnant women with restless legs syndrome who met the inclusion criteria. Data were collected using the Restless Legs Syndrome Diagnostic Criteria Questionnaire, the Restless Legs Syndrome Severity Rating Scale, a Personal Information Form, and an Integrative Medicine Use Form.

Results: The pregnant women of the 61.4% were in their last trimester, and 75.7% had no information about restless legs syndrome. Symptoms started at an average of 20.29 ± 8.65 weeks of gestation and 81.1% of the pregnant women did not consult a physician. Of those who did consult a physician, 57.7% consulted a gynecologist and 81.0% were recommended vitamins/minerals as a treatment. For syndrome symptoms, 50.7% of pregnant women used integrative medicine practices. The four most commonly used methods were taking vitamins (55.9%), prayer (51.9%), brisk walking (45.2%) and massage (33.3%). There was no statistically significant difference between the use of integrative medicine practices and the severity of restless legs syndrome (*P*> *.05*).

Conclusion: Restless legs syndrome is a condition that is not widely recognized by pregnant women. About half of pregnant women try to manage the condition by using integrative medical practices for syndrome. Nurses and other health professionals should provide information to pregnant women to raise awareness of the disease and provide effective treatment options.

Keywords: Integrative medicine practices, nursing, pregnant, restless legs syndrome, Willis-Ekbom disease.

ÖZ

Amaç: Huzursuz bacak sendromu olan gebelerin bütünleşik tıp uygulamalarını kullanma durumlarının belirlenmesi.

Yöntemler: Kesitsel tanımlayıcı tipte olan çalışma, bir üniversite hastanesinin perinatoloji servisi ve polikliniğinde 2 Şubat-11 Mayıs 2022 tarihleri arasında yürütülmüştür. Çalışma huzursuz bacak sendromu olan ve dahil edilme kriterlerini karşılayan 148 gebe ile yapılmıştır. Veriler Huzursuz Bacak Sendromu Tanı Kriterleri Anket Formu, Huzursuz Bacak Sendromu Şiddeti Derecelendirme Skalası, Kişisel Bilgi Formu ve Bütünleşik Tıp Uygulamaları Kullanım Formu ile toplanmıştır.

Bulgular: Gebelerin %61,4'ü son trimesterdadır, %75,7'sinin huzursuz bacak sendromu ile ilgi bilgisi bulunmamaktadır. Semptomlar ortalama olarak gebeliğin 20,29 ± 8,65 haftasında başlamakta olup gebelerin %81,1'i bunun için hekime başvurmamıştır. Hekime gidenlerin %57,7'si kadın hastalıkları ve doğum uzmanına başvurmuş ve %81.0'ine tedavi olarak vitamin/mineral önerilmiştir. Gebelerin %50,7'si sendrom semptomları nedeniyle bütünleşik tıp uygulamalarını kullanmaktadır. Gebelerin en sık kullandığı dört yöntem sırası ile vitamin kullanımı (%55,9), dua etme (%51,9), tempolu yürüyüş (%45,2) ve masajdır (%33,3). Gebelerin entegre tıp uygulamaları kullanım durumları ile huzursuz bacak sendromu şiddeti arasında istatistiksel olarak anlamlı bir farklılık bulunmamaktadır (*P > .05).*

Sonuç: Huzursuz bacak sendromu gebeler tarafından çok fazla tanınmayan bir hastalık olarak görülmektedir. Gebelerin yaklaşık olarak yarısı HBS için bütünleşik tıp uygulamalarını kullanarak hastalıkla baş etmeye çalışmaktadır. Hemşireler ve diğer sağlık çalışanları hastalığa ilişkin farkındalık artırmak ve etkili tedavi seçenekleri sunmak için gebeleri bilgilendirmelidir.

Anahtar Kelimeler: Bütünleşik tıp uygulamaları, gebe, hemşirelik, huzursuz bacak sendromu, Willis-Ekbom hastalığı.

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INTRODUCTION

Restless legs syndrome (RLS) is a common sensory-motor neurological disorder that significantly affects the quality of life and causes an irresistible urge to move the legs with uncomfortable sensations such as tingling, numbness, and burning. The disease symptoms are anticipated to manifest themselves during periods of rest and while trying to fall asleep at night, while declining with movement during the day.[1] Restless leg syndrome can be encountered in two forms: primary and secondary. Primary RLS arises due to genetic transmission, or when there is an inheritance-related malfunction in dopamine metabolism. Secondarily, it can be seen in cases such as drug use such as selective serotonin-reuptake inhibitors, caffeine intake, Parkinson's, thyroidism, fibromyalgia, diabetes, multiple sclerosis, end-stage renal disease, iron deficiency anemia and pregnancy.[1-3] The prevalence of RLS in pregnant women is reported to be 21.4%.[4] While RLS can develop in any trimester, its severity increases with gestational week.[5] The pathophysiology of RLS related to pregnancy is not fully understood, though it is hypothesized that endocrine and dopamine system dysfunction, metabolic changes, deficiencies in iron, hemoglobin, magnesium, folate, B12, and high levels of thyroid-stimulating hormone during pregnancy may contribute to its development.[6-8]Deterioration in the overall quality of life for pregnant women is evident due to insomnia caused by RLS.[9] Steinweg et al.'s[10] meta-analysis indicates that pregnant women with RLS have a higher risk of gestational hypertension, preeclampsia, and peripartum depression. However, the study also notes that RLS may result in cesarean delivery, premature birth and low birth weight. Hence, managing symptoms and treating the disease are crucial.[10] Available pharmacological treatments consist of iron and folic acid supplementation, dopamine agonists, antiepileptics, and benzodiazepines. The mainstay of treatment is the use of dopaminergic agents. Other medications such as opioids, antiepileptics, and benzodiazepines may be used in cases where patients are unresponsive to these agents or experience severe side effects.[3] These medications may result in adverse reactions, notably when consumed for an extended period. For this reason, patients are turning to integrative medicine practices, which are becoming increasingly common.[11-12]

The belief that integrative medicine practices do not pose a threat to health has led to an increase in their usage. In this regard, moderate-intensity exercises which include brisk walking, water aerobics, dancing, yoga and massage therapy have been recommended for expectant mothers to mitigate RLS symptoms.[13] Several studies have demonstrated the effectiveness of techniques such as progressive relaxation exercises (PRE), acupuncture, acupressure, hot and cold water practice on the legs, in mitigating the severity of RLS symptoms.[14-17] Although integrative medicine practices are recommended for the management of RLS symptoms in pregnant women, no studies investigating the practices employed by pregnant women have been identified in the literature. Obstetrics and gynecology nurses play a crucial role in the management of RLS, which affects one in five pregnant women.[4,18] It is therefore important to identify the integrative health care practices used by pregnant women for RLS, to improve the quality of life of pregnant women, to identify high-risk situations early and to provide appropriate treatment. Therefore, the study aims to determine the integrative medicine options that pregnant women prefer for managing RLS symptoms, thus adding to the literature in the field. Identifying the practices used by this group could assist in developing effective treatment approaches and better service delivery. Consequently, this research may guide clinical practices and aid healthcare professionals.

AIM

To determine the use of integrative medicine practices in pregnant women with RLS.

RESEARCH QUESTIONS

Answers to the following research questions were sought:

1. Do pregnant women with RLS utilize integrative medicine practices?
2. What is the incidence of integrative medicine practices usage and satisfaction rates among pregnant women with RLS?
3. Is there a difference in the severity of RLS symptoms between pregnant women who do and don't employ integrative medicine practices?

METHODS

Study Design

The study is a cross-sectional descriptive research.

Place and Time of Research

The study was conducted at the Perinatology Polyclinic and Perinatology Service of the University Health Research and Practice Centre between 2 February and 11 May 2022.

Population and Sampling

The study population consisted of pregnant women who registered at the Obstetrics and Gynecology Polyclinic of

the Centre and were admitted to the Perinatology Service for delivery. In a study determining the prevalence of RLS during pregnancy in the province where the study was carried out, the presence of RLS was found in 10.5% of women.[19] Using the prevalence result from this study, the number of women included in the study was determined to be 145 using sample size calculation in Minitab at the 95% confidence interval and $p < .05$ level of significance. Pregnant women over 18 years old who had a live and singleton pregnancy, were diagnosed with RLS based on the RLS Diagnostic Criteria Questionnaire Form and physician examination, and had secondary RLS related to pregnancy were eligible for inclusion in the study. Those with any diagnosed psychiatric disease or communication barrier were excluded.[14,16,19] During the study period, 3325 pregnant women underwent screening, with 172 exhibiting symptoms of RLS. Subsequent to this, 17 women were deemed ineligible, whilst a further 4 declined participation in the study. Consequently, 151 pregnant women were identified as eligible, with 148 completing the study after three questionnaires were excluded due to incomplete responses. The mean score of the RLS Severity Rating Scale was used in the G*Power programme to calculate the power of the research, and the effect size was .80 as a result of the calculation. In this direction, the power was determined to be 99% as a result of the post power analysis performed by taking effect size: .80 n: 148 and alpha: .05.

Data Collection Tools

Study data were collected with the RLS Diagnostic Criteria Questionnaire, RLS Severity Rating Scale, Personal Information Form, and Integrative Medicine Practices Usage Form.

RLS Diagnostic Criteria Questionnaire Form: The form developed by the International Restless Legs Syndrome Study Group (IRLSSG) (1995) can be used to make a diagnosis of RLS based on the patient's history. There are five questions in the form and the questions are answered as 'yes' or 'no'. If all questions are answered 'yes', a diagnosis of RLS is made.[20] Although there is no validation or reliability data available for the Turkish version of the RLS Diagnostic Criteria Questionnaire Form, this tool has been widely used in various RLS studies conducted in Türkiye.[14,15,19]

Restless Legs Syndrome Rating Scale (IRLS): The scale was originally developed by the International Restless Legs Syndrome Working Group (IRLSSG) (2003) to assess the severity of RLS.[20,21] The Ay et al. Turkish scale validity and reliability study was conducted in 2019. It consists of 10 questions. Each question is worth between 0-4 points. The total score that can be obtained from the scale varies between 0-40. A score of 1-10 indicates mild RLS, 11-20 moderate RLS, 21-30 severe RLS, and 31-40 very severe RLS.[22] While the Cronbach's alpha coefficient of the scale is .82, [22] it was found to be .83 in this study.

Personal Information Form: In the form prepared by this study researcher, there are 18 questions including descriptive features, obstetric, and RLS characteristics of pregnant women with RLS.[14-16,19]

Integrative Medicine Practices Usage Form: The form is not a standardized measurement tool, but was developed by the researchers to assess pregnant women's use of integrative medicine practices using the US National Centre for Classification of Health (NCCAM).[23] There are five questions in the form to determine pregnant women's use of integrative medicine practices to reduce RLS symptoms, reasons for preferring them, practices used, frequency of use (week/month) and satisfaction. In integrative medicine practices; 25 practices were surveyed in five groups, including biologically based treatments (use of vitamins, herbs, beverages, etc.), mind-body treatments (music therapy, hypnotherapy, prayer, etc.), body-based treatments (massage, exercise, hydrotherapy, acupuncture, etc.), energy treatments (reiki, creative imagery), alternative medicine and medical system treatments (aromatherapy, ayurveda, homeopathy) (NCCIH, 2018). Pregnant women rated their satisfaction with the integrative medicine practices they used on a visual scale of 10 (min=1, max=10).[24] The form does not have an overall score. The use of the methods is scored separately.

Data Collection

Data were collected in the outpatient clinic before or after the examination time. As some pregnant women were admitted to the ward after the examination, their data were collected in the patient room on the ward. After the pregnant women were informed about the study, the presence of RLS symptoms was determined using the RLS Diagnostic Criteria Questionnaire in women who had given written consent to participate in the study. The RLS Diagnostic Criteria Questionnaire is not routinely used in the outpatient clinic. However, it has been used in research process to identify pregnant women with RLS symptoms. The presence of RLS was then confirmed by physician in the study. In the second stage, pregnant women with RLS who met the inclusion criteria were given the RLS Severity Rating Scale, the Personal Information Form and the Integrative Medical Practice Use Form and asked to fill out the forms once. The questionnaires took an average of ten minutes to answer.

Data Analysis

The research data analysis was conducted using the IBM SPSS Statistics 24.0 (IBM Corp., Armonk, New York, USA) statistical package program. Normality of the data distribution was assessed using the Kolmogorov-Smirnov test and the equality of variances with QQ graphs and the Levene test. Descriptive statistics are provided as the number of units (n), percentage (%), and mean and standard deviation. Categorical variables were analyzed using the chi-square test. A comparison of pregnant women's use of IRLS and integrative medicine practices between groups was evaluated with an independent sample t-test. In comparisons, $p < .05$ value was considered statistically significant.

Ethical Considerations

Ethics Committee approval (date: 2021, confirmation number: 484) was obtained from the Erciyes University Clinical Research Ethics Committee for the conduct of the study. The study adhered to the tenets of the Declaration of Helsinki, and verbal and written informed consent was obtained from subjects by explaining the purpose of the study.

RESULTS

During the study period, 3325 pregnant women were screened and 5.17% were found to have RLS symptoms. The mean age of the pregnant women was 28.40 ± 5.51 years, 61.4% were in their last trimester and 42.6% had completed primary school (Table 1).

Table 1. Distribution of Some Descriptive Characteristics of Pregnant Women (*n* = 148)

Features	**x̄ ± sd**
Age	28.40 ± 5.51
Current BMI	28.30 ± 4.85
Gestational week	27.59 ± 7.74
Gravida	2.49 ± 1.35
Gestational week	***n* (%)**
Trimester (1-13 weeks)	10 (6.8)
Trimester (14-26 weeks)	47 (31.8)
Trimester (27-41 weeks)	91 (61.4)
Level of education	***n* (%)**
Primary education	63 (42.6)
Secondary education	44 (29.7)
Undergraduate education and above	41 (27.7)
Working status	***n* (%)**
Worker	23 (15.5)
Not working	125 (84.5)

Table 2 shows some characteristics of pregnant women in relation to RLS. While 75.7% stated that they had no information about RLS, most of those who did (83.4%) stated that they had obtained information from other sources such as family and the media.

Table 2. RLS-Related Characteristics of Pregnant Women (*n* = 148)

Information status about RLS	***n* (%)**
Yes	36 (24.3)
None	112 (75.7)
Information resource on RLS	
Health employee	6 (16.6)
Other (Family, media, environment, etc.)	30 (83.4)
Presence of RLS in previous pregnancy	
Yes	53 (35.8)
None	95 (64.2)
RLS symptoms (x̄ ± sd)	20.29±8.65
Status of applying to a physician for RLS	
Applicant	28 (18.9)
Non-applicant	120 (81.1)
Department to which the physician is consulted	
Gynecology and obstetrics	16 (57.1)
Family health center	6 (21.4)
Other (neurology, physical therapy, emergency)	5 (17.9)
Cardiovascular surgeon	1 (3.6)
Treatment recommendation for RLS	
Yes	21 (75.0)
None	7 (25.0)
Physician recommended treatment*	
Vitamin-Mineral	17 (81.0)
Exercise	2 (9.5)
Compression stockings	1 (4.8)
Anticoagulant	1 (4.8)
Life effect of RLS	
Adversely affected	48 (32.4)
Unaffected	100 (67.6)
Status of using integrative medicine practices for RLS	
Using	75 (50.7)
Not using	73 (49.3)
Reason for using integrative medicine practices*	
Natural and safe	45 (60.0)
It is good for physical, social, spiritual and mental fatigue / and increases the quality of life	39 (26.35)
To cope with RLS	25 (33.3)
Do not think the drug is not helpful	2 (2.6)
Other	3 (3.9)

RLS, restless legs syndrome; x̄ ± sd, mean ± standard deviation; *(*n*=21) Calculated only; from those who said yes; ** More than one answer was given.

Table 3. Mean Scores of Integrative Medicine Practices Used by Pregnant Women for RLS (*n*= 75)

Methods			*n* (%)*	Practice Frequency		Satisfaction score (0-10) x̄ ± sd
				Per week (times) x̄ ± sd	Per month (times) x̄ ± sd	
Biologically Based Therapies	Diet / regime change		19 (25.3)	4.56 ± 2.58	14.00 ± 11.88	6.11 ± 2.11
	Use of vitamins		43 (55.9)	6.01 ± 2.02	24.23 ± 9.79	7.11 ± 2.42
	Plant use		10 (13.3)	2.37 ± 2.06	7.9 ± 8.03	5.33 ± 3.64
	Beverage use		15 (20.0)	4.33 ± 2.74	14.86 ± 11.66	6.46 ± 3.35
	Music therapy		11 (14.2)	3.44 ± 2.35	11.63 ± 9.66	7.27 ± 3.03
Mind and Body Therapies	Hypnotherapy		1 (1.3)	0.0 ± 0.0	2.0 ± 0.0	2.0 ± 0.0
	Meditation/yoga		2 (2.6)	2.0 ± 0.0	5.0 ± 4.24	5.5 ± 6.36
	Dreaming		9 (12.0)	4.66 ± 2.82	19.11 ± 11.75	7.22 ± 2.68
	Praying		39 (51.9)	6.76 ± 1.36	25.94 ± 7.90	8.40 ± 2.47
	Get group support		6 (8.0)	6.60 ± 0.89	22.83 ± 11.32	9.5 ± 2.47
	Massage		25 (33.3)	4.0 ± 2.43	14.04 ± 10.76	7.01 ±2.83
Body-Based Therapies	Exercise	Brisk walking	34 (45.2)	3.82 ± 2.09	15.47 ± 8.67	7.43 ± 2.62
		Making cultural-physical movements	5 (6.6)	4.20 ± 2.68	17.20 ± 11.27	8.20 ± 2.48
		Swimming regularly	0 (0.0)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
	Hydrotherapy	Bath with thermal water or shower in the bathtub at home	3 (4.0)	3.66 ± 3.05	12.33 ± 8.50	6.50 ± 4.49
		Herbal bath	0 (0.0)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
	Reflexology		8 (10.6)	3.0 ± 2.56	12.25 ± 10.71	7.62 ± 2.77
Energy Treatments	Acupuncture		0 (0.0)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
	Acupressure		7 (7.3)	3.28 ± 2.75	13.0 ±11.78	6.0 ± 2.82
	Reiki		1 (1.3)	5.0 ± 0.0	20.0 ± 0.0	10.0 ± 0.00
	Healing or therapeutic touch		5 (6.6)	3.60 ± 2.40	14.80 ± 10.35	7.40 ± 3.97
	Creative imagination		6 (8.0)	3.83 ± 2.85	15.66 ± 11.89	7.0 ±2.52
Alternative Medicine and Medical Systems Treatments	Aromatherapy		0 (0.0)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
	Ayurveda		0 (0.0)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
	Homeopathy		2 (2.6)	3.0 ± 0.0	11.0 ± 1.41	7.0 ±1.41

RLS, restless legs syndrome; x̄ ± sd, mean ± standard deviation; *Yes percentages are given

The average onset of RLS symptoms was 20.29 ± 8.65 weeks into pregnancy, and 81.1% of pregnant women reported that they had not consulted a physician. More than half (57.7%) of those who did consult a physician reported that the department they consulted was gynecological and obstetrics, and 81.0% of them reported that they were recommended vitamin/mineral supplements as a treatment after the examination. 50.7% of pregnant women used methods of integrative medicine (Table 2).

Table 3 shows the integrative medicine practices used by pregnant women to manage RLS symptoms. The first most preferred method was the use of vitamins with 55.9% and the mean satisfaction score of the pregnant women regarding its use was 7.11 ± 2.42. Prayer was the second most preferred method (51.9%), with a mean satisfaction score of 8.40 ± 2.47. The third most preferred method was brisk walking (45.2%) to manage RLS symptoms, with satisfaction scores of 7.43 ± 2.62. Massage was in fourth place (33.3%) with a satisfaction score of 6.96 ± 2.83.

Table 4. IRLS Mean Scores of Pregnant Women Comparison by Integrative Medicine Practices Usage Status (*n*= 148)

IRLS	Status of Using Integrative Medicine Practices		Total	Test
	Using (*n* = 75) *n* (%)	Not using (*n* = 73) *n* (%)	*n* (%)	*P*
Light	13 (8.8)	14 (9.4)	27 (18.3)	
Middle	39 (26.1)	42 (28.1)	81 (54.7)	x^2 = 1.021 *P* = .600
Severe	23 (15.4)	17 (11.4)	37 (27.0)	
Total score (x̄ ± sd)	17.67 ± 5.96	15.89 ± 5.84	16.79 ± 5.95	*t* = 1.833 *P* = .069

IRLS, Restless Legs Syndrome Rating Scale; x̄± sd, mean ± standard deviation; x^2, chi square test; independent sample t test

While the mean IRLS score of the women was 17.67 ± 5.96 in pregnant women using integrative medicine practices, it was 15.89 ± 5.84 in non-users, and there was no statistically significant difference between the groups (*P*= .069). When the cases of pregnant women using integrative medicine, practices are examined according to RLS severity categories, the users and non-users are respectively; while the severity of RLS was determined to be 8.8% to 9.4% in mild, 26.1% and 28.1% in moderate, and 15.4% and 11.4% in severe patients, the groups were statistically similar (*P*= .600, Table 4).

DISCUSSION

The present study aimed to investigate the utilization of integrative medicine practices among pregnant women for managing symptoms of RLS and their level of satisfaction with the applied therapies. Symptoms of RLS were found in 5.17 % of the women who were women attending for pregnancy follow-up during the study period. In a meta-analysis study, the prevalence of RLS in midwives was reported to be 21.4%, but the prevalence varies between countries.[4] The descriptive features of pregnant women included in this study, such as average age and educational qualifications, align with those of other studies analyzing the implementation of integrative medicine practices for pregnant women.[11,25] The literature suggests a progressive increase in the severity of RLS in pregnant women during specific gestational weeks.[4,5]

Only 27.7% of expectant mothers experiencing RLS possess familiarity with the condition, with the majority procuring information from the media. Research indicates that pregnant women frequently take recourse to the media and social surrounds to tackle health apprehensions and augment their well-being.[26] Approximately one fifth (18.9%) of patients sought physician for RLS symptoms. Scanty instances of physician consultation may be due to a lack of awareness of RLS. The scarcity of consultations and the inadequate knowledge of the ailment among the populace emphasizes the necessity for expectant mothers to have thorough and exhaustive information regarding this topic.

In our study, 16 out of the 28 pregnant women who sought medical help reported symptoms of RLS to their obstetricians and gynecologists. The remaining 6 women sought care at the family health center, another pregnant follow-up center. In parallel with the results of our study, Aksu[27] came to a similar conclusion and found that women

generally sought antenatal care from their obstetricians and gynecologists and family health center physician during pregnancy. The results show that pregnant women mostly went to obstetricians and gynecologists for antenatal care. This situation shows that although antenatal care is accepted as a preventive health service, primary health centers should play a more active role. It has been found that physicians primarily provided pregnant with vitamin supplements, followed by exercise. Iron, magnesium, folate and B12 deficiency during pregnancy are recognized as risk factors associated with gestational RLS.[10] Furthermore, literature supports the notion that exercise can alleviate RLS symptoms.[14,28] Therefore, pregnant women may have been advised to partake in vitamin-mineral supplementation and exercise.

Awareness of integrative medicine practice is increasing daily in Türkiye and worldwide.[3,11,12] It was determined that half of the pregnant women who participated in this study used integrative medicine practices to reduce the severity of RLS and they preferred it the most (60.0%) because it was natural and safe. Similarly, Koç et al[11] found that pregnant women's use of such methods was due to their belief that they were safe. It is seen that pregnant women most frequently prefer vitamin, praying, brisk walking and massage among integrative medicine practices.[11] A study conducted by Akbaş[14] analyzed the impact of PRE-on pregnant women with RLS. The study partially questioned non-pharmacological measures used by these women to alleviate the severity of RLS. It was found that pregnant women mainly use walking, massage, hot and cold practice, warm shower, and magnesium to alleviate the severity of RLS.[14] Upon examination of practice satisfaction scores among pregnant women, it was found that their satisfaction levels were above average, except for involving hypnotherapy. The practice achieving the highest satisfaction score was reiki (n=1), however, the lack of a substantial sample size reduces the reliability of the results. Therefore, the study was compared the practices preferred by more than ten pregnant women to evaluate their satisfaction scores. The results showed that prayer (8.40 ± 2.47) obtained the highest satisfaction score. Praying is accepted as a therapeutic method in most societies. Similar to the results of the study, it is known that most people with chronic pain use the prayer method and feel relieved.[12]

It is seen that approximately half of the pregnant women try to cope with the disease by trying different integrative medicine practices for RLS. Among the methods used, in biological-based treatments; in the use of vitamins, in mind and body treatments, in music therapy, daydreaming, prayer and group support; reflexology, massage, walking and cultural physical movements in body-based treatments; creative imagery, reiki and healing touch in energy treatments; in alternative medicine and medical systems treatments, it is seen that the satisfaction score in homeopathy is seven and above. Although it is known in the literature that hot and cold-water practices with the foot immersion method, PRE, walking, and vitamin use are effective in reducing the severity of RLS and reducing sleep quality[13,14,15,17] there is no study examining the effect of other integrative medicine practices with high satisfaction levels on pregnant women with RLS. These findings offer valuable insights for healthcare professionals and specialists advising expectant mothers. Therefore, supporting integrative medicine practices during pregnancy and further investigating their effects is needed. RLS severity of pregnant women was determined as moderate in this study. Although the symptoms of RLS during pregnancy show individual differences, they can vary from very mild to very severe. Similarly, in Dikmen's[9] study, RLS severity of pregnant women was determined as *moderate*, while Pantaleo et al.[29] found that the severity of RLS in pregnant women was *severe*. Although RLS severity was higher among pregnant women who used integrative medicine practices versus those who did not use them in the study, the difference was not significant statistically. This may be due to pregnant women not applying their preferred integrative medicine practices in a regular and disciplined and regular form, or to the fact that the practices could not be carried out according to a protocol.

In conclusion, gestational RLS is a disease about which pregnant women lack comprehensive information. The negative effects of RLS on sleep health and quality of life necessitate an in-depth investigation into this condition during pregnancy. It is imperative to provide requisite information to pregnant women to combat this condition.[30] Therefore, health professionals have major responsibilities in this regard. Especially nurses, and physicians, who have important roles and responsibilities in pregnancy follow-up, awareness of RLS symptoms and treatment is important in this respect.

Awareness among pregnant women regarding RLS, their status of applying to the healthcare centers, the treatments, and practices recommended by their physicians, the practices of integrative medicine used by pregnant women to relieve their symptoms, and their satisfaction with these practices are very important for the diagnosis and treatment of RLS. The results of this study may help to conduct gestational RLS awareness trainings for both pregnant women and healthcare professionals, to plan more detailed studies on the use of methods that pregnant women use and are satisfied with, to conduct

studies with a high level of evidence to prove the effectiveness of these methods, and to develop effective strategies that can be used to improve the health and well-being of pregnant women.[31]

Limitations of the Study

The limitation of this study are that the integrative medicine practices (time, duration, pressure, and region of practice) used by pregnant women could not be evaluated in depth, the study was conducted in a single center, hemodynamic variables such as hemoglobin, iron and medications used by pregnant women were not questioned. However, our study does not provide information on the integrative practices of pregnant women who are not diagnosed with RLS. There may be pregnant women in the study group who use other practices and do not have RLS symptoms because they benefit from these practices.

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Depremzedelere Bakım Veren Hemşirelerin Deneyim, Duygu ve Düşüncelerinin Belirlenmesi: Nitel Bir Çalışma

Determining the Experiences, Feelings and Thoughts of Nurses Caring for Earthquake Victims: A Qualitative Study

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ÖZ

Amaç: Bu niteliksel çalışma, depremzedelere bakım veren hemşirelerin deneyim, duygu ve düşüncelerin belirlenmesi amacıyla gerçekleştirilmiştir.

Yöntemler: Bu çalışma, Mersin ilinde bulunan ve en büyük üçüncü basamak sağlık hizmeti veren özel bir hastanede Nisan -Mayıs 2023 tarihleri arasında depremzedelere bakım veren 29 hemşire ile yapılmıştır. Araştırma verileri yarı yapılandırılmış görüşme formu kullanılarak toplanmış ve verilerin içerik analizi yapılmıştır. Bu nitel araştırma "Niteliksel Araştırmayı Raporlamaya İlişkin Birleştirilmiş Kriterler (COREQ)" kullanılarak raporlanmıştır.

Bulgular: Çalışmadan elde edilen sonuçlara göre, hemşirelerin ifadeleri; deneyim, duygu ve düşünce olmak üzere üç ana ve on alt temada toplanmıştır. Hemşirelerin deneyimleri ana temasında; kayıp yaşamlar, yaşamın önemi ve umuda tutunma; hemşirelerin duyguları ana temasında, üzüntü, çaresizlik, buruk mutluluk ve stres yaşama; hemşirelerin düşünceleri ana temasında ise mesleki doyum, savunucu rol ve empati kurma alt temaları oluşmuştur.

Sonuç : Bu araştırmada depremzedelere bakım veren hemşirelerin pek çok farklı deneyim, duygu ve düşünceyi bir arada yaşadıkları görülmüştür. Hemşirelere psikolojik destek sağlanmasına ilişkin yönetsel çalışmaların yapılması önerilmektedir.

Anahtar Kelimeler: Depremzede, Deneyim, Duygu, Düşünce, Hemşire

ABSTRACT

Objective: This qualitative study was carried out to determine the experiences, feelings and thoughts of nurses caring for earthquake victims.

Methods: This study was conducted with 29 nurses caring for earthquake victims between April and May 2023 in a private hospital that provides the largest tertiary healthcare service in Mersin province. Research data were collected using a semi-structured interview form and content analysis of the data was conducted. This qualitative study was reported using the "Consolidated Criteria for Reporting Qualitative Research (COREQ)."

Results: According to the results obtained from the study, the nurses' statements were collected in three main and ten sub-themes; experience, emotion and thought. In the theme of nurses' experiences; lost lives, the importance of life and holding on to hope; On the theme of nurses' emotions; experiencing sadness, despair, bittersweet happiness and stress; In the theme of nurses' thoughts; Sub-themes of professional satisfaction, defensive role and empathy were formed.

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Conclusion: In this study, it was observed that nurses caring for earthquake victims experienced many different experiences, emotions and thoughts together. It is recommended that managerial studies be carried out on providing psychological support to nurses.

Keywords: Earthquake Victim, Emotion, Experience, Nurse, Thought

GİRİŞ

Deprem ülkesi olarak bilinen ve en önemli deprem kuşağı üzerinde yer alan Türkiye' de 6 Şubat 2023 tarihinde yaklaşık 10 saat içinde iki deprem meydana gelmiştir. Birincisi Kahramanmaraş'ın Pazarcık ilçesinde 7,8 büyüklüğünde, ikincisi ise Elbistan ilçesinde 7,5 büyüklüğünde gerçekleşmiştir. Bu iki şiddetli deprem, Kahramanmaraş çevresinde, Hatay, Gaziantep, Osmaniye, Malatya, Adana, Diyarbakır, Şanlıurfa, Adıyaman, Kilis ve Elâzığ illerinde ciddi yıkıma neden olmuştur.[1,2] Deprem gibi doğal afetler beklenmedik ölüm ve yaralanmalar nedeniyle hem bireylerin hem de sağlık çalışanlarının fiziksel, ruhsal ve sosyal sağlıkları üzerinde olumsuz etkiler bırakmaktadır.[3] Fiziksel etki olarak can kaybı, yaralanma, sakat kalma, deprem sonrası salgın hastalıklara maruz kalma, stres ve endişeye bağlı (ülser, migren, bulantı ve diğer mide rahatsızlıkları, yorgunluk, bedensel ağrı ve acılar, ani irkilmeler ve cinsel istekte azalmalar vb.) somatik şikâyetler[4,5], ruhsal açıdan travma sonrası stres bozukluğu (TSSB), anksiyete, depresyon, bedensel yakınmalara bağlı uyku bozukluğu gibi psikiyatrik bozukluklar[6,7] ve sosyal açıdan da sosyal gerileme, aile çatışması, finansal ve mesleki stres gibi yaşamda kronik sorunlar, sosyal katılım ve algılanan desteğin azalması[4] gibi etkileri olduğu bildirilmiştir.

Deprem gibi büyük afetlerde en büyük iş gücü olan hemşireler, sağlık ekibinin içinde önemli bir rol oynamaktadır.[8] Deprem felaketini yaşamış olan hemşireler hem afetzede hem de bakım vericidirler.[9] Bu durum hemşirelerin deprem felaketinden daha fazla etkilenmelerine neden olmaktadır. Hemşireler sağlık hizmetlerinin yürütülmesinde, birçok zorlu koşulda (malzeme ve ekipman eksikliği, barınma ve beslenme sorunları, koordinasyon güçlükleri, yaralanma, ölüm, psikolojik travmalar vb.) bakım hizmeti vermek zorunda kalırken aynı zamanda koordinasyonu sağlayarak kriz sürecini de yönetmeleri gerekmektedir.[10] Hemşireler sadece afet durumundan etkilenen hastalara bakım sağlamakla kalmayıp, ek olarak görev yerlerinde ve kişisel yaşamlarındaki önemli değişikliklerle ilişkili stresleriyle baş ederken de yapmak zorunda kalmaktadırlar.[11] Bu durum hemşirelerin çok daha fazla fiziksel ve psikolojik baskıya maruz kalmasına neden olmakta[12] ve aldıkları eğitim ile içinde çalıştıkları sistemin afetlere hazır bulunuşluk açısından desteklenmesi gereğini ortaya koymaktadır.

Bu niteliksel çalışmanın amacı, depremzedelere bakım veren hemşirelerin deneyim, duygu ve düşüncelerinin belirlenmesidir.

Araştırma Soruları

1. Depremzedelere bakım veren hemşirelerin deneyimleri nelerdir?
2. Depremzedelere bakım veren hemşireler hangi duyguları yaşamışlardır?
3. Depremzedelere bakım veren hemşireler hangi düşüncelere sahip olmuşlardır?

YÖNTEMLER

Araştırmanın Amacı ve Tipi

Depremzedelere bakım veren hemşirelerin deneyim, duygu ve düşüncelerin belirlenmesi amacıyla yürütülen bu araştırma nitel araştırma yaklaşımlarından biri olan fenomenolojik (olgubilim) desende gerçekleştirilmiştir. Hemşirelerin deneyim, duygu ve düşüncelerini daha kapsamlı anlama çabamızdan dolayı nitel araştırma türünü seçtik.

Araştırmanın Yeri ve Zamanı

Bu araştırma, Mersin ilinde bulunan ve üçüncü basamak sağlık hizmeti veren özel bir hastanede Nisan -Mayıs 2023 tarihleri arasında yapılmıştır. Araştırmanın yapıldığı hastanede 100 yatak, 5 klinik bulunmakta ve toplam 90 hemşire görev yapmaktadır. 6 Şubat 2023 depreminden sonra araştırma verilerinin toplanmasına kadar geçen sürede hastaneye başvuru yapan 314 depremzede hastaya sağlık bakım hizmeti verilmiştir.

Katılımcı Özellikleri

Çalışma grubu, amaçlı örnekleme yöntemlerinden olan ölçüt örnekleme ile belirlenmiştir. Nitel araştırma geleneği içinde ortaya çıkan amaçlı örnekleme yöntemi, olgu ve olayların açıklanmasına olanak tanır.[13] Ölçüt örnekleme yöntemi ise önceden belirlenmiş ölçütleri karşılayan durumları belirlemeyi içerir.[14] Bu doğrultuda, depremzedelere bakım vermiş, psikiyatrik problemi ve iletişim sorunu olmayan hemşirelerden çalışmaya katılmayı kabul edenler çalışma grubunu oluşturmuştur. Dâhil edilme kriterlerine uyan hemşirelerin tamamına ulaşılmak hedeflenmiş ancak.[29] sıradaki katılımcıyla birlikte veri doygunluğuna ulaşıldığı için veri toplama süreci sonlandırılmıştır. Dahil edilme kriterlerini karşılamayan hemşireler çalışmaya alınmamıştır.

Verilerin Toplanması

Araştırma verileri, araştırmacılar tarafından hazırlanan ve hemşirelerin sosyo-demografik özelliklerini içeren 6 sorudan oluşan "Kişisel Bilgi Formu'' ile katılımcıların deneyim, duygu ve düşüncelerine yönelik 3 sorudan oluşan "Yarı Yapılandırılmış Bireysel Görüşme Soru Formu" kullanılarak toplanmıştır. Soru formlarının işlevselliğini test etmek amacıyla dâhil edilme kriterlerine uygun 3 hemşire ile pilot çalışma yapılmış ve formlar değiştirilmeden aynen kullanılmıştır. Pilot çalışma yapılan üç hemşirenin yanıtları çalışmaya dâhil edilmemiştir. Görüşmeler hemşirelerin çalıştığı kliniklerde sessiz, sakin ve araştırmacılar dışında başka kişilerin bulunmadığı bir odada yüz yüze iki araştırmacı (BS, FÖ) tarafından saha notları tutularak yapılmış olup her bir görüşme ortalama 30-35 dakika sürmüştür. Hemşireler ile yapılan görüşmelerde herhangi bir ses ya da görüntü kaydı alınmamış ve yeterli veri toplanması nedeniyle tekrar görüşmelere gereksinim duyulmamıştır.

Kişisel Bilgi Formu: Anket formunda bireylerin sosyo-demongrafik özelliklerine yönelik (yaş, cinsiyet, medeni durum, eğitim durumu, mesleki deneyim süresi, çalışılan birim vb.) 8 adet soru yer almaktadır.

Yarı Yapılandırılmış Bireysel Görüşme Soru Formu: Anket formu katılımcıların deneyim, duygu ve düşüncelerine yönelik 3 adet sorudan oluşmaktadır. Sorular uzman araştırmacılar tarafından literatür gözden geçirilerek hazırlanmıştır. 15-17 Bu sorular aşağıda belirtilmiştir;

1. 6 Şubat depreminde depremden sonra biriminizde bakım vermiş olduğunuz hastalar ile ilgili sizi en çok etkileyen bir deneyiminizi (anınızı) paylaşınız.

2. Depremzede bireylere bakım vermek size ne hissettirdi? Duygularınızı paylaşınız.

3. Depremzede bireylere bakım vermek size ne düşündürdü? Düşüncelerinizi paylaşınız.

Verilerin Değerlendirilmesi

Araştırma verileri içerik analizi ile değerlendirilmiştir. İçerik analizi, fenomeni tanımlamanın sistematik bir yolu olarak gösterilmektedir.[18] Elde edilen veriler kaydedilirken gizliliğin sağlanması amacıyla katılımcıların adları gizlenmiş, her bir katılımcı 1'den 29'a kadar numaralandırılmıştır. Veriler öncelikle iki ayrı araştırmacı (SC, NÖ) tarafından tekrar tekrar okunmuş ve satır satır kodlanmıştır. Sonrasında kodlar kategorize edilmiş ve önceden belirlenen üç ana tema altında birbiriyle ilişkili kodlardan alt temalar oluşturulmuştur ve ortak görüş neticesinde veri değerlendirme süreci sonlandırılmıştır.[19] Ayrıca güvenirlik kriteri için hemşirelerin transkriptleri kontrol etmeleri ve araştırmacıların yorumlarını değerlendirmeleri sağlanmış ve geribildirimleri alınmıştır. Bu nitel araştırma 'Niteliksel Araştırmayı Raporlamaya İlişkin Birleştirilmiş Kriterler (COREQ) aracılığı ile kapsamlı bir protokole dayalı olarak raporlanmıştır.[20]

Etik Konular

Bu çalışma, insan deneklerin yer aldığı tıbbi araştırmalara yönelik Helsinki Bildirgesi'nin etik ilkeleri uyarınca gerçekleştirilmiştir. Çalışmaya başlamadan önce, Toros Üniversitesi "Bilimsel Araştırma ve Yayın Etiği Kurulu"ndan (Karar No: 26.04.2023/48) etik kurul onayı ve çalışmanın yapıldığı hastaneden kurum izni alınmıştır. Katılımcı hemşirelerle görüşülerek araştırmanın amacı açıklanmış ve aydınlatılmış onam alınmıştır. Araştırmaya gönüllü olarak katılan hemşirelerin tamamı görüşmeyi tamamlamış olup hiçbiri araştırmadan ayrılmamıştır.

Araştırmanın İnanılırlığı (Geçerlik ve Güvenirlik)

Nitel araştırmanın inandırıcılığı için inanılırlık, güvenilebilirlik, onaylanabilirlik ve aktarılabilirlik olmak üzere dört ölçüt kullanılmaktadır.[21] Araştırma süreci boyunca bu dört ölçüt göz önünde bulundurulmuştur. Bu araştırmada görüşmelerin yüz yüze, iki araştırmacı tarafından 30-35 dakika süreyle gerçekleştirilmesi, hemşirelerin temaları kontrol etmeleri ve araştırmacıların yorumlarını değerlendirmeleri inanırlığı arttırmak için kullanılan yöntemlerdir. Verilerin toplanması ve analizi sürecinde birden fazla araştırmacıya yer verilerek araştırmacı üçgenlemesi yapılmış, böylece araştırmanın güvenilebilirliği arttırılmaya çalışılmıştır. Onaylanabilirlik ölçütünü sağlamak için araştırma bulgularında, katılımcıların kendi ifadelerini içeren doğrudan alıntılara yer verilmiştir. Araştırmanın aktarılabilirliği ise örneklem

yöntemi, katılımcı özellikleri ve görüşme yapılan ortam açıklanarak sağlanmaya çalışılmıştır.

BULGULAR

Bu araştırmaya katılan 29 hemşirenin hepsinin kadın olduğu, %53'nün 18-35 yaş aralığında, %57'sinin evli ve %53'ünün üniversite mezunu olduğu görülmüştür. Hemşirelerin ortalama çalışma süresi 12 yıl olup %73'ü daha önce depremzedelere bakım vermemiştir (Tablo 1).

Verilerin analizi neticesinde, araştırma bulguları önceden belirlenen üç ana temada sınıflandırılmıştır. Ana temalardan on adet alt tema ortaya çıkmıştır (Tablo 2).

Ana Tema 1: Hemşirelerin Deneyimleri

Hemşirelerin deneyimleri teması; kayıp yaşamlar, yaşamın önemi ve umuda ve hayata tutunma şeklinde üç alt tema olarak gruplandırılmıştır. Her bir alt tema için hemşirelerin ifadeleri aşağıdaki gibidir;

Alt Tema 1: Kayıp Yaşamlar

"…Erkek bir hastamın, eşini ve çocuklarını kaybetmesi ve bundan haberi olmaması, onları bulmak için oraya gitmek istemesi beni çok etkilemişti" (H 8).

"…Hastam ampute olmuştu, iki çocuğu ve kocasını depremde kaybetmişti, hastamın gözündeki çaresizlik ve üzüntü beni derinden etkiledi" (H 12).

Tablo 1. Katılımcıların Özellikleri (n= 29)

Değişkenler		Sayı (n)	Yüzde (%)
Yaş	18-35	15	51,7
	36-45	10	34,4
	46-60	4	13,7
Cinsiyet	Kadın	29	100
	Erkek	0	0
Medeni Durum	Evli	13	44,8
	Bekâr	16	55,2
Mesleki Deneyim	10 yıl altı	13	44,8
	10 yıl ve üzeri	16	55,2
Çalışılan Birim	Karma Servis	7	24,1
	Yoğun Bakım	9	31
	Ameliyathane	5	17,2
	Acil Servis	4	13,7
	Ortopedi	2	6,8
	Enfeksiyon Kontrol Hemşiresi	2	6,8
Depremzede Yakını Olma Durumu	Evet	12	41,3
	Hayır	17	58,6
Depremzedelere Daha Önce Bakım Verme Durumu	Evet	8	27,5
	Hayır	21	72,5

Alt Tema 2: Yaşamın Önemi

"…Hayatın bize neler göstereceğini bilmeden yaşıyormuşuz meğer, her yeni gün hiç tatmadığımız yeni acılarla tanışabiliyoruz… yaşadığımız her günün önemli olduğunu hissettirdiler" (H 1).

"…Hayatın bir sınav olduğunu ve bu sınavı en iyi şekilde vermek gerektiğini düşünüyorum" (H 7)

Alt Tema 3: Umuda ve Hayata Tutunma

"… Bir depremzedenin bütün ailesini kaybetmesine ve bir bacağının ampute olmuş olmasına rağmen umuda ve hayata tutunmaya çalışması ve yürümeye kendini motive etmesi beni etkiledi. Her şeye rağmen umuda ve hayata tutunma çabaları hepimizde olmalı…" (H 10).

"…Bir hastam, her son yeni bir başlangıç, bu zor günleri

yenip hayata baştan başlayacağız demişti. İçindeki umut beni çok duygulandırdı…" (H 7).

Tablo 2. Ana Tema ve Alt Temalar (n=29)

Ana Temalar	Alt Temalar
Hemşirelerin Deneyimleri	Kayıp Yaşamlar (%62)
	Yaşamın Önemi (%34)
	Umuda ve Hayata Tutunma (%10)
Hemşirelerin Duyguları	Üzüntü Duygusu (%48)
	Çaresizlik Hissi (%34)
	Buruk Mutluluk (%31)
	Stres Yaşama (%14)
Hemşirelerin Düşünceleri	Mesleki Doyum (%58)
	Savunucu Rol (%14)
	Empati Kurma (%14)

Ana Tema 2: Hemşirelerin Duyguları
Hemşirelerin duyguları teması; Üzüntü, çaresizlik, buruk mutluluk ve stres yaşama şeklinde dört alt tema olarak gruplandırılmıştır. Hemşirelerin duyguları temasında dört alt tema belirlenmiştir. Her bir alt tema için hemşirelerin ifadeleri aşağıdaki gibidir;

Alt Tema 1: Üzüntü
"…Annesi üzerine ölen bir çocuk hastamın saatlerce kurtarılmayı o şekilde enkaz altında beklemesi beni çok üzdü…" (H 24)

"…Kalbim acıdı, kendi yaşantımdan utandım…" (H 23).

Alt Tema 2: Çaresizlik
"…her şeyini kaybetmiş birine kaybettiklerini verememek… çaresizliği çok derin yaşadım…" (H 26).

"…tek başına kimsesiz… büyük çaresizlik …" (H 19).

Alt Tema 3: Buruk Mutluluk

"…en azından bir kişinin hayatta olmasından dolayı içimde buruk bir mutluluk var…" (H 8).

"…insan hayatına dokunmak hiç bu kadar derinden etkilememişti…onlar için bir şeyler yapmak mutlu hissettirdi, buruk olsa da …" (H 5).

Alt Tema 4: Stres Yaşama
"…stres oldum, mental olarak yıprandım…" (H 21).

"…benim için stresli bir süreçti…" (H 17).

Ana Tema 3: Hemşirelerin Düşünceleri
Hemşirelerin düşünceleri teması; Mesleki doyum, empati kurma ve savunucu rol şeklinde üç alt tema olarak gruplandırılmıştır. Her bir alt tema için hemşirelerin ifadeleri aşağıdaki gibidir;

Alt Tema 1: Mesleki doyum
"...Yardıma ihtiyacı olan insanlara dolaylı yoldan bile olsa, onlara yardım eli uzatmak mesleğime olan tutkumu daha çok arttırdı…" (H 14).

"...Onlara bir nebze de olsa büyük felaketi unutturmaya çalışmak, yardım edebileceğimi somut olarak fark etmek beni iyi hissettirdi…" (H 11).

Alt Tema 3: Savunucu rol
"…Çaresiz olan hastaların yalnız olması, onların adına en doğru kararların bizim tarafımızdan verilmesi, aslında hemşirelerin tüm şartlarda hasta savunucusu olduğunu tekrardan hatırlattı… "…Onların yaşadığı şanssızlığı şansa dönüştürebilirim belki diye düşündüm…" (H 3)

Alt Tema 2: Empati kurma
"…Empati ile… onların yerinde biz de olabilirdik. Acılarını ruhumda hissettim…" (H 20).

"…İnsanların ne kadar çaresiz olduğunu gördüm. Acılarını kendim yaşamış kadar etkilendim. Bu süreçte empati yetimi çok fazla geliştirdiğimi düşünüyorum…" (H 9).

TARTIŞMA

Deprem gibi doğal afetler, salgın hastalıklar ya da çok sayıda kişinin etkilendiği kaza gibi felaketlerde, sağlık kuruluşlarında en ön saflarda yer alan hemşireler pek çok farklı deneyim, duygu ve düşünceye sahip olmaktadırlar.[5,22] Depremzedelere bakım veren hemşirelerin deneyim, duygu ve düşüncelerinin belirlenmesi amacı ile gerçekleştirilen bu nitel çalışmada, önceden belirlenen üç ana temaya ilişkin on alt tema

oluşturulmuştur. Bu nedenle hemşirelerin yanıtları temalar çerçevesinde tartışılmıştır.

Ana Tema 1: Hemşirelerin deneyimleri

Elde edilen bulgular ışığında, hemşirelerin deneyimleri ana teması incelendiğinde, kayıp yaşamlar, yaşamın önemi ile umuda ve hayata tutunma şeklinde üç alt temanın oluştuğu görülmektedir.

Hemşirelerin deneyimleri ana temasının en fazla kayıplar üzerinde yoğunlaştığı gözlenmiştir. Yapılan kalitatif bir çalışmada hemşirelerin travma sonrasında ölüm, yaralanma gibi karmaşık ve zor durumlarla baş etmek zorunda kaldıkları ifade edilmektedir.[23] Depremzedelere bakım veren hemşireler, yakınlarını kaybeden ya da kendi bedenlerinde uzuv kayıpları yaşayan depremzedelere bakım vererek birincil travmasını yaşarken, afeti yaşamamış olsalar bile, depremzede hastalarla yakın temas kurdukları için yaşanan travmatik durumun rahatsız edici detaylı hikayelerini de dinleyerek ikincil travma yaşamaktadır.[24,25] Bu çalışmada belirlenen hemşire deneyimlerinin en çok kayıplar üzerine yoğunlaşması ve bunun hemşireler üzerindeki etkileri literatür bilgileriyle örtüşmektedir.

Hemşirelerin deneyimleri temasında, ikinci en çok vurgulanan alt tema depremde hayatta kalmanın ve yaşamanın önemi olmuştur. Deprem gibi doğal afetler, insanın istemediği, bireylerin hayatına acı veren travmatik olaylardır. Ancak insan değişen yaşam alanında başka bir büyüme ve iyileşme yaşar.[26] Hemşirelik bireyin, ailenin ve toplumun sağlığını koruyan ve geliştiren, hastalık halinde iyileşme ve rehabilite eden ve yaşamın değerini en iyi anlayan meslek gruplarından biridir.[27,28] Yapılan kalitatif bir çalışmada; yaşanan deprem sonrasında hemşirelerin hayatta olduklarına şükrettikleri, yaşamın ve varoluşlarının önemini daha iyi anladıkları vurgulanmıştır.[25] Bir başka çalışmada ise hemşireler, depremde büyük acılara ve can kayıplarına tanık olmanın yaşama değer vermelerine yardımcı olduğunu dile getirmişlerdir.[8] Yaşamın önemine ilişkin literatür bilgileri ile bu araştırmanın bulguları benzerlik göstermektedir.

Hemşireler hastalarda tanık oldukları hayata tutunma çabalarını takdir ederek kendilerinin her şeye rağmen umuda ve hayata tutunma isteği duyduklarını deneyimlemişlerdir. Yapılan bir çalışmada, cesaret ve umudun klinik hemşirelerinde psikolojik sıkıntı üzerinde koruyucu etkileri olduğu bildirilmiştir.[29] Bir başka çalışmada hemşirelerin felaket deneyimlerinin ortadan kalkmasına yardımcı olmak, umuda ve hayata tutunmalarını sağlamak için hemşire eğitimcilerini, araştırmacıları, liderleri ve politika yapıcılarının bilgilendirilmesi gerektiği vurgulanmıştır.[22]

Ana Tema 2: Hemşirelerin duyguları

Bu çalışmada hemşirelerin büyük çoğunluğu yaşanan felaketten dolayı üzüntü çaresizlik gibi olumsuz duyguları yaşarken hasta bakımı sırasında buruk bir mutluluk içinde olduğunu ifade etmiştir. Bunun yanında stres yaşama duygusu da hemşireler tarafından dile getirilmiştir. Böylece hemşirelerin duyguları ana temasında üzüntü, çaresizlik, buruk mutluluk ve stres duyguları alt tema olarak belirlenmiştir. Sloand ve ark' nın (2012) yaptığı çalışmada hemşirelerin deprem sırasında ve depremden sonra korku, suçluluk, üzüntü, mutluluk, stres ve kaygı gibi duygular yaşadığı bildirilmiştir.[30] Wenji ve ark. (2015)'nın yaptığı çalışmada hemşirelerin depremden sonra çoğu zaman üzüntü duygusunun üstesinden gelemediği, hatta tanı konulmamış ve tedavi edilmemiş travma sonrası stres bozukluğu (TSSB) yaşıyor olabileceği bildirilmiştir.[17] Hemşireler kendi duygularını yönetirken aynı zamanda başkalarının acılarını, hassasiyetlerini ve deneyimlerini de yöneterek duygusal emek vermektedir.[31] Tanık olunan olay karşısında yaşanan çaresizlik ve mevcut durumla baş edememe, büyük kitleleri etkileyebilmektedir.[32] Ölümü yaklaşan bireye müdahalede bulunmak veya bir insanın ölümüne tanık olmak oldukça stres verici ve duygusal açıdan yıpratıcı durumlar yaşanmasına ve hasta bakımında zorlanmasına neden olabilmektedir.[33] Yapılan bir çalışmada hemşirelerin ölüm karşısında üzüntü ve çaresizlik yaşaması nedeniyle kendini başarısız hissettiği belirtilmektedir.[33] Travmatik bir olay ya da böyle bir olaya tanıklık etme kişinin ölüm tehdidine karşı korku ve çaresizlik hissetmesine neden olabilmektedir.[4]

Deprem nedeniyle hemşireler hem kendisi hem de bakım verdiği hastaların veya yakınlarının ölümü bu duyguları kaçınılmaz bir hale getirmektedir. Yapılan kalitatif bir çalışmada, hemşirelerin deprem anını düşündüklerinde çaresizlik, yıkıcı, felaket, yürek parçalayıcı gibi ifadeleri tüm görüşmeler boyunca sık kullandığı vurgulanmıştır.[30]

Afet durumlarında, sağlık bakım hizmetlerine yönelik talebin artmasıyla birlikte yaşanan deprem sürecinde hemşirelik bakımının önemi bir kez daha kendini göstermiştir.[34] Depremzedelere bakım vermek hemşireler için zorlu koşullar ve stresli anlarla doludur. Ancak bu zorluklarla başa çıkabildiklerinde ve hastalara yardım edebildiklerinde bir tür içsel tatmin ve gurur duygusu yaşayabilirler. Hemşireler, afetler sırasında kayıp ve acı yaşayan insanlarla empati kurarlar. Bu onların insanların

duygusal yükünü paylaşmaları ve yardım etmenin bir sonucu olarak yaşadıkları buruk mutluluğun bir parçası olabilir.[35] Hemşirelerin afet mağdurlarına bakım verirken yaşadıkları buruk mutluluk, insanların hayatta kalmalarına yardımcı olduklarını bilmekten kaynaklanabilir.

Afet ruh sağlığı araştırmaları, yaşanan bir felaketten kaynaklanan psikolojik kayıpların fiziksel kayıplardan çok daha fazla olduğunu ortaya koymaktadır.[36] Sato ve ark.' nın, yaptığı çalışmada, hemşirelerin önemli bir kısmının (%87,3) afet sırasında travmatik bir olay yaşadığı, %26,3'ünün travma sonrası stres bozukluğu için pozitif sınır kriterlerini karşıladığı, %11,9'unun ise yüksek düzeyde kaygı ve depresyon yaşadığı bildirilmiştir.[25] Hastalıkları Kontrol ve Korunma Merkezi (Centers for Disease Control and Prevention-CDC), sağlık çalışanlarını afetten etkilenen gruplar arasında olduğunu belirtmektedir.[37]

Ana Tema 3: Hemşirelerin düşünceleri

Bu araştırmada hemşirelerin düşünceleri ana teması mesleki doyum, savunucu rol ve empati kurma alt temaları etrafında şekillenmiştir. Hemşirelerin yarıdan fazlası depremzedelere yardımcı olmanın kendilerine mesleki doyum yaşattığını ifade etmişlerdir. Deprem gibi büyük bir felaketten dolayı bireylere bakım veren hemşirelerin, iyi bir bakım veriyorsa mesleki doyum yaşadığı bildirilmiştir.[12,38] Başarılı tedavi sonuçları ve hasta memnuniyeti, hemşirelerin mesleklerini daha değerli hissetmelerine katkıda bulunabilir. Bu araştırmanın bulguları literatür ile uyumludur.

Bu araştırmada hemşireler, savunuculuk rollerini tekrar hatırladıklarını ve bunun gerekli olduğunu belirttiler. Hemşirelerin, depremler sonrası hastaların sağlık ve güvenlik ihtiyaçlarını karşılayarak, bilgilendirerek, onları destekleyerek ve haklarını koruyarak için hasta savunuculuğu yaparak bakımında kilit rol oynaması çok önemlidir.[36] Hemşireler kendileri ile ilgili karaları alamayacak kadar zor durumda olan savunmasız grupların da hakkını koruyarak en iyi, en doğru ve en kaliteli bakımın verilmesini sağlamalıdır.

Hemşirelerin düşünceleri ana temasının üçüncü alt teması empati kurmak olarak belirlenmiştir. Hemşireler depremzedelerin acılarını ve travmalarını yakından gözlemleyerek empati kurduklarını ifade etmişlerdir. Bir kişinin, kendisini karşısındaki bireyin yerine koyarak olaylara o bireyin gözüyle bakması, o bireyin düşünce ve duygularını doğru olarak hissetmesi, anlaması ve bu durumu karşısındaki bireye iletmesi süreci empati olarak ifade edilmektedir.[35] Hemşireler empati kurma becerisini kullanarak hastaları ve iletişimde olduğu diğer kişileri daha doğru anlayabilirler[39]. Bu araştırmanın bulguları hemşirelerin depremzedelere bakım verirken empati kurma becerilerini kullandıklarını ortaya koymuştur.

Bu araştırma, depremzedelere bakım veren hemşirelerin pek çok farklı deneyim, duygu ve düşünceyi bir arada yaşadıklarını ortaya koymuştur. Çok yönlü zorlayıcı faktöre rağmen stresli bir çalışma ortamında mesleki bağlılık ve bireysel baş etme çabalarıyla görevlerini yerine getirdikleri belirlenmiştir.

Bu sonuçlar, deprem gibi afet durumlarında hemşirelerin çalışma koşullarının gözden geçirilmesine ve psikolojik destek mekanizmalarının geliştirilmesine ilişkin yönetsel çalışmaların önemine vurgu yapmaktadır. Depremzedelere bakım veren hemşirelerin, bakım verdikleri bireylerin durumlarından ne şekilde etkilendikleri ve bu kaotik durumla nasıl baş edecekleri konusunda stratejiler belirlenebilmesi için depremzedelere bakım veren hemşirelerin deneyim, duygu ve düşüncelerini ortaya koyan çalışmaların arttırılması önerilmektedir.

Araştırmanın Sınırlılıkları

Araştırma yalnızca belirli bir hastane ortamında gerçekleştirilmiştir. Bu hastanenin özellikleri ve çalışma koşulları, diğer hastanelerdeki hemşirelerin deneyimlerinden farklı olabilir. Bu nedenle, çalışmanın bulgularının diğer yerlerdeki hemşireleri ne kadar yansıttığı sorgulanabilir. Ayrıca araştırmacılar, verilerin toplanması ve analizi sırasında kendi önyargıları veya beklentileriyle etkileşime girebilirler. Bu verilerin yorumlanması ve sonuçların çıkarılmasında bir sınırlılık oluşturabilir.

Etik Komite Onayı: Etik kurul onayı Toros Üniversitesi Yerel Etik Kurulu'ndan (Tarih: 13.04.2023, Sayı: 26.04.2023/48) alınmıştır.
Bilgilendirilmiş Onam: Hemşirelerden onam alınmıştır.
Hakem Değerlendirmesi: Dış bağımsız.
Yazar Katkıları: Fikir- FÖ, BS, NÖ; Tasarım- BS, SC; Denetleme- BS, FÖ; Veri Toplanması ve/veya İşlemesi BS, FÖ; Analiz ve/ veya Yorum- NÖ, SC; Literatür Taraması- NÖ, SC; Yazıyı Yazan- NÖ, SC; Eleştirel İnceleme- BS, FÖ.
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Comparison of the Effect of School-Based Game and Training Intervention on Overweight and Obese Students on Weight Loss: A Randomized Controlled Trial

Fazla Kilolu ve Obez Öğrencilere Okul Temelli Oyun ve Eğitim Müdahalesinin Kilo Vermeye Etkisinin Karşılaştırılması: Randomize Kontrollü Deneysel Bir Çalışma

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ABSTRACT

Objective: The aim of this study was to compare the effects of the Kaledo game and the nutrition training designed according to the health belief model on weight loss, nutritional self-efficacy, attitude and behaviour in overweight and obese students.

Methods: This study was a randomized controlled trial. There were three groups in the study: game (n=38), training (n=35), and control (n=53). At the beginning and end of the study, the height and weight of the participants were measured in all three groups, and body mass index values were calculated and scales were applied.

Results: The BMI z-score values were found to be lower in the training group after the training than before (*P*<.05). While there was no significant difference in nutritional attitude scores between the groups, in the in-group evaluations, the students in the game group were found to display a more positive nutrition attitude after the game intervention than before (*P*<.05).

Conclusion: The BMI z scores of the students decreased after the training. The students had a more positive nutrition attitude after the game. There is a need for experimental studies with a longer duration, larger sample, which can more clearly reveal the effect of the Kaledo game, and the difference between it and the nutrition training prepared according to Health Belief Model.

Keywords: Childhood obesity, Kaledo game, Health Belief Model, nutrition, school nurse

ÖZ

Amaç: Fazla kilolu ve obez çocuklarda Kaledo oyununun ve sağlık inanç modeline göre hazırlanmış beslenme eğitiminin kilo vermeye beslenme özyeterliğine, tutumuna ve davranışına etkisini karşılaştırmaktır.

Yöntemler: Bu araştırma randomize kontrollü deneysel çalışmadır. Araştırmada oyun (n=38), eğitim (n=35) ve kontrol (n=53) olmak üzere üç grup yer aldı. Araştırma başlangıcında, oyun ve eğitim müdahalelerin sonunda her üç grupta boy ve kilo ölçümleri yapılarak beden kitle indeksi değerleri hesaplandı ve ölçekler uygulandı.

Bulgular: Beden kitle indeksi z skoru değerlerinin eğitim grubunda eğitim sonrasında öncesine göre daha düşük olduğu tespit edildi (*P*<,05). Beslenme tutum puanları gruplar arası farklılık göstermezken, grup içi değerlendirmelerde oyun grubundaki öğrencilerin oyun müdahalesi sonrası öncesine göre daha olumlu beslenme tutumu sergilediği tespit edildi (*P*<,05).

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Sonuç : Eğitim sonrasında öğrencilerin BKİ z puanlarında düşüş gözlendi. Oyun sonrası öğrenciler daha olumlu beslenme tutumuna sahip olmuştur. Kaledo oyununun etkisini ve Sağlık İnanç Modeli'ne göre hazırlanan beslenme eğitimi ile arasındaki farkı daha net ortaya koyabilecek daha uzun süreli, daha geniş örneklemli deneysel çalışmalara ihtiyaç vardır.

Anahtar Kelimeler: Çocukluk çağı obezitesi, Kaledo oyunu, Sağlık İnanç Modeli, beslenme, okul hemşiresi

INTRODUCTION

Obesity is a condition characterized by an increased accumulation of fat in the body. Fat accumulation occurs when energy intake is greater than energy consumption.[1] Obesity is increasing rapidly worldwide, not only in adults but also in childhood. About one in six children and adolescents, or 12.7 million young people aged 2 to 19, is currently overweight or obese worldwide.[2]

Nutrition, exercise and behavioral change form the basis of the treatment approach for childhood obesity. The basis of behavioral training is to transform the nutrition behaviour that causes obesity and negative health behaviors leading to physical inactivity into positive health behaviors.[3,4] Belief-based approaches are important in creating behavior change. The Health Belief Model,[5] developed by Rosenstock in 1966 and later expanded by Becker et al., is a model with an aim to explain and predict health behaviors by focusing on individuals' attitudes and beliefs. This model argues that personal beliefs or perceptions of an individual about a disease/health condition determine the health behavior. In line with this model, in order for an obese child to perceive obesity as a problem, to take it seriously, and create a positive behavioral change for nutrition as a result, the children should be taught the right way of nutrition. However, teaching a child the right way of nutrition and creating positive behavior change is a very difficult process. In this process, the child's ability to assimilate the correct form of nutrition and make it a habit is directly proportional to success. Therefore, there is a need for education methods in which the correct nutrition can be taught to the child in the fight against obesity and the child can continue consistently without getting bored. In parallel with technological developments, new educational methods are also developing. Gamification in education is one of these methods. In education with the gamification method, the child acquires both the necessary knowledge and the skills, beliefs and habits change.[6] Games also have an effect on developing positive health behavior.[7] These effects of games on children have been used in many scientific studies to develop positive health behavior. It can be seen that many games have been developed in the literature to change the nutrition style. One of these games is the Kaledo. The development study for this game was carried out in three schools in Naples, Italy. Both in this study and the subsequent study concluded that it is a suitable method for school-age children.[8,9,10] Kaledo game, which has been used in several scientific studies, is a game that aims to provide healthy nutrition and physical activity education to children and provide behavioral change in the treatment of obesity, teaches calorie balance over the calorie values of nutrients. Kaledo game has been reported to be an effective tool to teach children about healthy nutrition in a study carried out using it.[8] In two different studies conducted by Viggiano et al.[9,10] a significant decrease in BMI z-score values and a significant increase in healthy nutrition knowledge was found after the Kaledo game intervention. In the study conducted by Şen et al.[11] on obese children whose parents were taken to family-based group therapy, a significant decrease was found in the BMI and BMI z-score values of the Kaledo game group. As can be seen, the effect of the Kaledo game on BMI has been investigated in several studies. The difference of our study from these studies is that it has been conducted in obese and overweight students, compares the game with nutrition training prepared according to Health Belief Model (HBM), and evaluates nutritional self-efficacy, attitude, behavior, and BMI together no study of this design has been found in the literature.

Proper nutrition knowledge is an important factor in maintaining weight control in overweight and obese children. School is the most suitable educational environment the correct way of nutrition can be learned and permanent behavior change can be created. The fight against obesity in schools of our country cannot go beyond nutrition education and the arrangement in school canteens. However, it is not possible for obese children to be able to fight obesity without individual intervention. School health nurses are in a position to play an active role in this individual fight. The aim of this study was to compare

the effects of the Kaledo game and the nutrition training designed according to the health belief model on weight loss, nutritional self-efficacy, attitude and behavior in overweight and obese students. Therefore, our hypothesis was that the students who receive nutrition training by playing the Kaledo game have higher nutritional self-efficacy, more positive nutrition attitudes, healthier nutrition habits and lose more weight after the training compared to those who receive nutrition training according to HBM.

METHODS

Study Design and Setting

This study was a randomized controlled trial (ClinicalTrials.gov ID: NCT04620044). The population of the study consisted of 321 overweight and 222 obese students of grades 5-6-7 of three secondary schools in the 2019-2020 academic year. These three schools were chosen because of their similarity in terms of sociodemographic characteristics.

Participants

Power analysis (Gpower version 3.1) was performed to determine the sample size of the study. Number of participants in each group was determined to be 57 (significance level 0.05 for type 1 error, effect size 0.53 and power 0.80). In line with this, the study was carried out with 64 participants in each group, considering the missing and erroneous data and absenteeism from the study. At the end of the study, the power obtained after the power analysis with the same effect size (0.53) was found to be 0.99.

The height and weight of the students in each school were measured, and the status of being overweight and obese of the students was determined by using the child body mass index calculation tool of the Department of Healthy Nutrition and Active Life, General Directorate of Public Health, Ministry of Health. Weight measurements were made using school uniforms, and clothes that would increase weight, such as cardigans and vests, were removed. The same electronics weighing machine was used for weight measurements. In all groups, both measurements were made in the morning. For height measurements, the students' shoes were removed, their feet were brought together, and their heels and back were leaned against the wall. In this position, measurements were made using a height meter attached to the wall. The BMI z-score values of the students were calculated using the formula Z=[(measurement/M)L-1]/LS in accordance with the BMI z–score classification table published by the WHO.[12,13] These students have been stratified according to their status of being overweight and obese (Figure 1). A total of 32 overweight students and 32 obese students were selected through lots for each group to form the sample size (n=64) determined by power analysis. Throughout various weeks of the game sessions, a total of 26 students, expressing their desire not to continue with the game, left the group. The game sessions were completed with 38 students. Throughout various weeks of the education sessions, a total of 29 students expressed their unwillingness to continue with the education and left the group. The education sessions were completed with a total of 35 students. In the control group, however, 11 students did not wish to participate in the repeat height and weight measurements and scale application. The control group was completed with 53 students.

Inclusion criteria were:

- 5,6 and 7th grade education
- Having a BMI percentile value over 85
- Volunteering to participate for the research
- Student parent's consent

Exclusion criteria were:

- Presence of visual and hearing impairment
- Using a language other than Turkish
- Being on a diet under the control of any specialist or using medication for weight control

Removal criteria from the sample

- Not participating in all of the 12-week game and training sessions

Data Collection Tools

Personal Information Form: Questions of age, gender, grade, presence of an overweight member in the family, frequency of meals, fast-food eating habits, snacking habits, frequency of physical activity were included in this form prepared by the researchers.

Child Dietary Self-efficacy Scale: The scale was developed within the scope of Child and Adolescent Trial for Cardiovascular Health (CATCH), a research project in the United States (US).[14,15] The Child

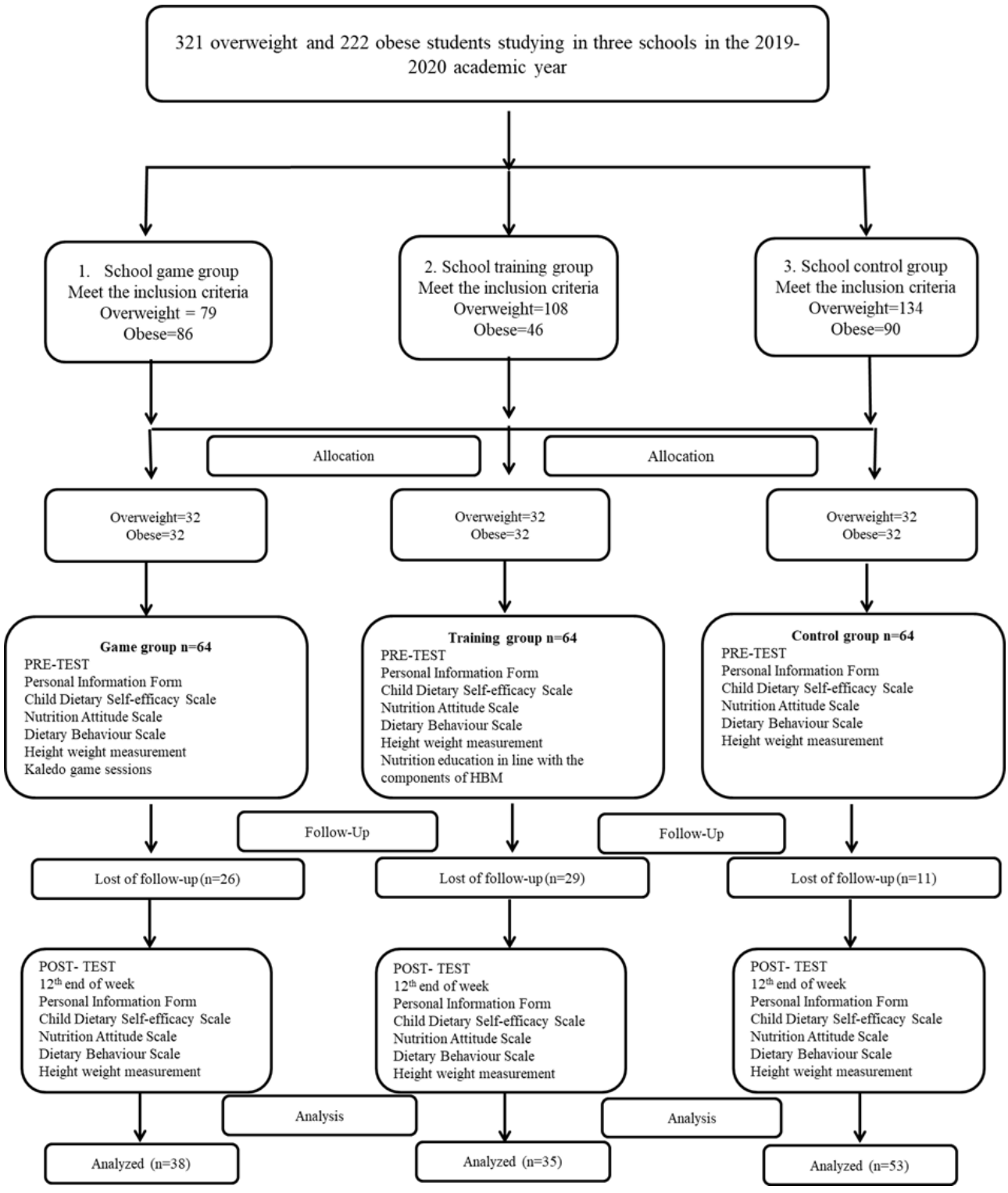

Figure 1. Randomized Controlled Study Flowchart

Detary Self-Efficacy Scale measures self-efficacy ensuring children eat low-fat and low-salt food items. Scale items were formed from various food items containing fat and salt. The scale, a 3-point Likert type, has a single factor structure consisting of 15 items. The total score ranges from -15 to +15. A high total score obtained from the scale indicates a high level of self-efficacy. The Turkish validity and reliability study of the scale has been performed and shown that it can be used on Turkish children.[16] The Cronbach alpha value of the scale in this study was 0.75.

Nutrition Attitude Scale: Nutrition Attitude Scale is the "Nutrition" subscale of "The Children's Cardiovascular Health Promotion Attitude Scale." The Children's Cardiovascular Health Promotion Attitude Scale, developed by Arvidson (1990) 17 to evaluate children's attitudes towards improving cardiovascular health, and consists of 16 items, was adapted to Turkish society by Öztürk Haney and Bahar.[18] The scale consists of four subscales: (1) Physical Activity - 4 items; (2) Nutrition - 4 items; (3) Smoking- 4 items (4) Stress Management- 4 items. The nutrition subscale measures the child's attitude towards activities that reduce fat intake, increase healthy food consumption, and the way of nutrition that improve cardiovascular health. The total score ranges from 4 to 16. A high total score obtained from the scale indicates a high level of positive attitude. The Cronbach alpha value of the scale in this study was found to be 0.71.

Dietary Behaviour Scale: The scale was developed within the scope of CATCH, a research project in the US.[14,15] The Dietary Behaviour Scale consists of 14 illustrated items with low fat/salty and high fat/salty food choices to determine the nutrient consumption of children. Children were shown comparable foods and asked which of the two food items they eat more. Total score ranges from -14 to +14. A high total score obtained from the scale indicates a healthy nutritional habit. The Turkish validity and reliability study of the scale has been performed and shown that it can be used on Turkish children.[16] The Cronbach alpha value of the scale in this study was found to be 0.71.

Data collection and intervention

Intervention groups were determined by drawing lots among the three schools where the study would be conducted. For the groups not to be aware of each other, each school formed an intervention group. The first school formed the Kaledo game group, the second school formed the nutrition training group according to HBM, and the third school formed the control group. After the samples were selected, height-weight measurements were conducted in all groups, and the scales were administered. Students were taken to meeting rooms and empty classrooms to fill out the surveys. The completion of the scales took an average of 15 minutes.

Intervention groups

First, the height and weight of the game group students were measured and the scales were applied to them. The plan for game sessions was developed in collaboration with the students selected for the game group and their parents. Over the course of 12 weeks, one day per week, with a total of 64 students in the game group; a total of 3 game sessions were held, 2 during lunch and 1 after school dismissal. Each game session lasted about 15-20 minutes. Each student was informed about which game session they would participate in. Game sessions were tracked using an attendance chart, and students who were absent were accommodated in another session to ensure the completion of 12 sessions.

The first step involved conducting height and weight measurements again for the students selected for the training group, and scales were applied. The 64 students in the training group were included in a 20-minute education session once a week for 12 weeks during lunchtime. The educational content was prepared in line with the components of the HBM. Education sessions took place in the school's training room and were conducted in the form of a PowerPoint presentation. Additionally, interactive participation of students in the education was ensured through a question-answer method during the sessions. The attendance of education sessions was monitored with an attendance chart, and for students who were absent, the topic of the week they missed was re-explained on another day.

Control group

First, the height and weight of the control group students were measured and the scales were applied to them. The control group students did not have any intervention. At the end of the 12th week, the height and weight of all students were measured again and the scales were applied to them.

Outcomes

Primary outcomes

The primary outcomes of this study were the BMI and the BMI z-score value calculated by height and weight measurements at baseline and 3rd month.

Secondary outcomes

The secondary outcomes of this study were dietary self-efficacy, nutrition attitude, dietary behaviour. The details of the measurement tools are explained under data collection tools.

Ethical considerations

In order to conduct the research;

Ethics committee approval (Date/number: 27 June 2019/12) was obtained from Eskişehir Osmangazi University Clinical Research Ethics Committee.

Informed consent was obtained from the students and their parents. In accordance with the permission obtained from the School Principal, a meeting with the parents of the students identified for all groups has been planned. Although most of the game group parents attended the meeting, the most of the training and control group parents did not attend the meeting. The parents of the students who did not attend the meeting were informed through teachers, and consent was sought by sending them an informational text. In cases where consent could not be obtained, other students were selected as replacements.

Statistical analysis

Data were analyzed with IBM SPSS V23. Normal distribution was evaluated with Shapiro-Wilk Test and Skewness-Kurtosis values. Since the kurtosis and skewness coefficients were between -2, +2, the normality assumption was accepted. Data for categorical variables were shown with frequency and percentage. One Way ANOVA was used in the independent group comparisons of students' nutrition self-efficacy, attitude and behavior scores, BMI, BMI z score values. The posthoc Bonferroni test was used to define the differences between the groups for the significant findings detected. The significance of the difference between pre-test and post-test scores was analyzed with Paired t test. Significance level was taken as $P<.05$.

RESULTS

The sociodemographic characteristics findings of the students who participated in all of the game and training sessions of the intervention groups are given in Table 1.

The BMI and BMI z-scores of the students in the game group were observed to be lower than the training group students both before and after the intervention ($P<.05$; Table 2). While the BMI values in all groups did not show any difference after the intervention compared to the pre-intervention ($P>.05$; Table 3), it was determined that the BMI z-score values in the training group were found to decrease after the intervention ($P=.031$; Table 3).

Table 1. The Sociodemographic Characteristics of the Students

	Game group		Training group		Control group		Total	
Variable	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Age								
9	2	5.3	1	2.9	1	1.9	4	3.2
10	22	57.9	17	48.6	20	37.7	59	46.8
11	9	23.7	13	37.1	17	32.1	39	31.0
12	5	13.2	4	11.4	15	28.3	24	19.0
Gender								
Girl	24	63.2	17	48.6	24	45.3	65	51.6
Boy	14	36.8	18	51.4	29	54.7	61	48.4
BMI status								
Normal	20	52.6	12	34.3	25	47.2	57	45.2
Overweight	17	44.7	22	62.9	26	49.1	65	51.6
Obese	1	2.6	1	2.9	2	3.8	4	3.2
Presence of overweight members in the family								
Yes	13	35.1	13	40.6	20	40.0	46	38.7
No	24	64.9	19	59.4	30	60.0	73	61.3

When the nutritional self-efficacy and behavior scores of the students in the intervention and control groups were compared, both pre-test and post-test scores were determined not to show differences between the groups ($P>.05$; Table 2).

Table 2. Comparison of the BMI, BMI Z Score, Self-Efficacy, Behavior and Attitude Scores of the Students in the Experimental and Control Groups

		Game group	Training group	Control group	F/*P*
Variable	**Time**	$\overline{X}$ ± SD	$\overline{X}$ ± SD	$\overline{X}$ ± SD	
Nutrition Self-efficacy	Pre-test	5.68 ± 4.80	6.91 ± 4.51	5.77 ± 4.76	0.796/.453
	Post-test	7.21 ± 4.72	7.51 ± 5.92	6.40 ± 4.85	0.570/.567
Nutrition Attitude	Pre-test	12.82 ± 2.29	13.66 ± 1.92	12.6 ± 3.05	1.880/.157
	Post-test	13.53 ± 2[ab]	13.83 ± 2[b]	12.53 ± 2.7[a]	**3.883/.023**
Nutrition Behaviour	Pre-test	3.71 ± 5.71	4.54 ± 5.44	2.45 ± 6.15	1.426/.244
	Post-test	4.61 ± 6.53	5.31 ± 6.12	3.13 ± 5.67	1.496/.228
BMI	Pre-test	22.96 ± 2.46[a]	24.91 ± 3.33[b]	23.83 ± 3.41[ab]	**3.552/.032**
	Post-test	23.14 ± 2.57[a]	24.99 ± 3.33[b]	24.01 ± 3.43[ab]	**3.109/.048**
BMI z-score	Pre-test	1.96 ± 0.56[a]	2.32 ± 0.55[b]	2.04 ± 0.57[a]	**4.093/.019**
	Post-test	1.93 ± 0.56[a]	2.27 ± 0.56[b]	2.02 ± 0.59[ab]	**3.371/.038**

F: Analysis of Variance, [a,b,c] Means of groups followed by different letters differ

In all the groups, the nutritional self-efficacy and nutritional behavior scores of the students after the intervention were found not to change compared to pre-intervention scores (*P*>.05; Table 3). There were between the groups differences in the post-test nutritional attitude scores. Nutrition attitude scores of the training group were higher than the control group (*P* =.023; Table 2). But it was similar with the game group. In addition the nutritional attitude scores of the game group were determined to increase after the intervention compared to the pre-intervention (*P*=.035; Table 3).

DISCUSSION

In the fight against childhood obesity, the child needs to learn the right way of nutrition and make this way of nutrition permanent. At this point, the question comes up, which method would be more effective to teach the correct nutrition style to the child. There is a need for different methods to teach the correct form of nutrition. In this study, it was aimed to compare the effects of the Kaledo game and the nutrition training designed according to the Health Belief Model on weight loss, nutritional self-efficacy, attitude and behavior in overweight and obese students. Since there were no studies on the effects of game and training on BMI, nutritional self-efficacy, nutritional attitude and nutritional behaviour levels of overweight and obese students, discussion of our findings was performed in line with the literature findings, obtained without any specific distinction between overweight and obese.

Gamification is the use of game-like design elements in a non-game context.[19] The use of games in health education to enhance and protect health is becoming increasingly popular. Through gamification, more information than traditional education can be obtained and expanded upon. The use of gamification in education can not only change knowledge but also other aspects of life such as skills, beliefs, and habits.[6] In this context, we anticipated that providing education to students through games would contribute to weight loss by creating behavior change, especially in terms of nutrition. However, the BMI values did not change after the intervention compared to the pre-intervention values in all the groups. Neither the game nor the training led to any change in the BMI values of the students. While no change was found in the BMI z-score values in the game and control groups after the intervention, the post-intervention BMI z-score values in the training group were determined to be lower compared to the pre-intervention. This result indicates that although training did not lead to a change in BMI values, it led to a change in the BMI z-score. In terms of the effect of the game on the BMI z-score values, Amaro et al. achieved a similar result.[8] In their study, Moore et al. reported no change in BMI values after a total of 6 courses of online nutrition training in 3 months. Although the training in their study was prepared in line with Orem's Self-Care Deficit Theory, the effect of training on the BMI values has been similar to our study.[20] However, in two different studies conducted by Viggiano et al.[9,10], they reported achieving a significant decrease in BMI z-score values after the Kaledo game intervention. The post-intervention evaluation was performed at the 6th month in one of these studies and the 8th month in the other one.[9,10] The fact that, in our study, the evaluation was performed at the 3rd month and the participants were overweight and obese students might be the reason for this difference. In their study with obese

children, in which different findings were obtained than ours, Şen et al.[11] found a significant decrease in the BMI and BMI z-score values of the Kaledo game group. The reason for this difference may be attributed to the fact that their study was carried out in the clinic and the parents of the children in the game group were involved in family-based group therapy. In the comparisons between the groups, the BMI values of the game group were found to be lower than the training group. There were also similar findings in the pre-test results. The assignment to the groups was performed according to being overweight and obese in order to achieve homogenization. Therefore, not being able to achieve homogenization of BMI in the sample was believed to be the reason for this low level.

Table 3. Comparison of in-Group Pre-Test Post-Test Scale Scores of the Students in the Experimental and Control Groups

		Game group	Training group	Control group
Variable	**Time**	$\overline{X}$ **±SD**	$\overline{X}$ **±SD**	$\overline{X}$ **±SD**
Nutrition Self-efficacy	Pre-test	5.68 ± 4.80	6.91 ± 4.51	5.77 ± 4.76
	Post-test	7.21 ± 4.72	7.51 ± 5.92	6.40 ± 4.85
	T/*P*	-1.906/.064	-0.683/.499	-1.170/.247
Nutrition Attitude	Pre-test	12.82 ± 2.29	13.66 ± 1.92	12.6 ± 3.05
	Post-test	13.53 ± 2	13.83 ± 2	12.53 ± 2.7
	T/*P*	**-2.191/.035**	-0.649/.521	0.167/.868
Nutrition Behaviour	Pre-test	3.71 ± 5.71	4.54 ± 5.44	2.45 ± 6.15
	Post-test	4.61 ± 6.53	5.31 ± 6.12	3.13 ± 5.67
	T/*P*	-1.247/.220	-0.593/.557	-1.041/.303
BMI	Pre-test	22.96 ± 2.46	24.91 ± 3.33	23.83 ± 3.41
	Post-test	23.14 ± 2.57	24.99 ± 3.33	24.01 ± 3.43
	T/*P*	-1.316/.196	-0.640/.527	-1.837/.072
BMI Z-Score	Pre-test	1.96 ± 0.56	2.32 ± 0.55	2.04 ± 0.57
	Post-test	1.93 ± 0.56	2.27 ± 0.56	2.02 ± 0.59
	T/*P*	0.770/.446	**-2.252/.031**	1007/.319

T; Paired-Sample T-Test

Gamification is the use of game-like design elements in a non-game context.[19] The use of games in health education to enhance and protect health is becoming increasingly popular. Through gamification, more information than traditional education can be obtained and expanded upon. The use of gamification in education can not only change knowledge but also other aspects of life such as skills, beliefs, and habits.[6] In this context, we anticipated that providing education to students through games would contribute to weight loss by creating behavior change, especially in terms of nutrition. However, the BMI values did not change after the intervention compared to the pre-intervention values in all the groups. Neither the game nor the training led to any change in the BMI values of the students. While no change was found in the BMI z-score values in the game and control groups after the intervention, the post-intervention BMI z-score values in the training group were determined to be lower compared to the pre-intervention. This result indicates that although training did not lead to a change in BMI values, it led to a change in the BMI z-score. In terms of the effect of the game on the BMI z-score values, Amaro et al.[8] achieved a similar result. In their study, Moore et al.[20] reported no change in BMI values after a total of 6 courses of online nutrition training in 3 months. Although the training in their study was prepared in line with Orem's Self-Care Deficit Theory, the effect of training on the BMI values has been similar to our study.[20] However, in two different studies conducted by Viggiano et al.[9,10], they reported achieving a significant decrease in BMI z-score values after the Kaledo game intervention. The post-intervention evaluation was performed at the 6th month in one of these studies and the 8th month in the other one.[9,10] The fact that, in our study, the evaluation was performed at the 3rd month and the participants were overweight and obese students might be the reason for this difference. In their study with obese children, in which different findings were obtained than ours, Şen et al.[11] found a significant decrease in the BMI and

BMI z-score values of the Kaledo game group. The reason for this difference may be attributed to the fact that their study was carried out in the clinic and the parents of the children in the game group were involved in family-based group therapy. In the comparisons between the groups, the BMI values of the game group were found to be lower than the training group. There were also similar findings in the pre-test results. The assignment to the groups was performed according to being overweight and obese in order to achieve homogenization. Therefore, not being able to achieve homogenization of BMI in the sample was believed to be the reason for this low level.

Gamification aims to motivate individuals and achieve positive behavior change in individuals.[21] The individual's ability to control their own behavior is associated with self-efficacy.[22] In this study, there was no difference between the groups in terms of nutritional self-efficacy. To determine the effect of the interventions on nutritional self-efficacy, it was evaluated whether the students' nutritional self-efficacy scores changed after the intervention compared to the pre-intervention. According to the results, no significant difference was found in the nutritional self-efficacy scores of the students in all the groups after the intervention compared to the pre-intervention. This indicates that both game and training do not have an effect on students' nutritional self-efficacy. The post-intervention evaluations of the students were carried out at the end of 3rd month which was the end of the game and training sessions. Given that building competence for nutrition is a process, it may be concluded that this process may not be completed in 3 months, therefore the effect of game and training on self-efficacy could not be observed, or it has an acute effect and the change that may occur due to the disappearance of the acute effect in the 3rd month could not be detected. In the study of Viggiano et al.[9] conducted similarly with the Kaledo game, no difference was found between the game group and the control group in terms of self-efficacy. In the study of Sharma et al.[23], students aged 9-11 played a computer-based educational game including nutrition and physical activity for 6 weeks. In the evaluation after the intervention, the nutritional self-efficacy was determined not to show differences from the pre-intervention. Although the game used in their study was different from the one in our study, the results on nutritional self-efficacy were similar to our study.[23] In another study conducted with 5th- grade students, the participants played a computer game, based on healthy nutrition and healthy living, for 52 minutes a day for 4 days, and the nutritional self-efficacy of the participants after the game was determined to increase significantly compared to the pre-game. The fact that different games and the study population, as well as the evaluation made after a short time like 4 days, may have revealed different results contrary to our study results, due to the possible acute effect of their study.[24]

The nutritional attitude that includes beliefs, thoughts, and feelings about food is a mental tendency that affects individuals' food choices and preferences.[25] Positive or negative attitudes towards any object, event or person are important in terms of having an influence on the behavior.[26] Turning a negative health behavior into a positive one in terms of nutrition is primarily possible by turning attitudes into positive ones. In educational interventions aimed at developing positive attitudes toward nutrition in children, it is crucial that the educational method is liked and found enjoyable by the child. This way, children can become more motivated to learn by gaining positive attitudes.[27] In this study, no difference was found in terms of students' nutrition attitudes between game-based education and education given in accordance with the HBM. While there was no difference observed in the training and control groups in the in-group evaluations, the post-intervention nutrition attitudes of the game group students were determined to be more positive compared to pre-intervention. This suggests that the Kaledo game is effective on the students' nutritional attitude, however, it does not have enough effect to make a difference between the groups. In the study of Yien et al.[28], the intervention group participants played computer-based nutrition information games while the control group had training with a PowerPoint presentation. After four weeks, the nutrition attitudes of both groups were found to be similar.[28] Although the game and the population used in this study are different, this result is similar to our study. In the study of Schneider et al., the students played a computer game for 52 minutes every day for 4 days, and the students were determined to have a more positive nutrition attitude in the evaluation made at the end of the 4th day.[24] The difference between the game used in the study and the study population and the acute effect might be the reason for the difference in the results.

In a gamified system, the fundamental elements of games direct players towards activities intended to encourage and motivate behavior change.[29] Game elements such as scoring systems, badges, multiple game levels, and scoreboards can lead to intrinsic motivation due to their interesting or enjoyable nature.[29] As a result, behavior change may occur. However, in our study, the game and education did not have an impact on nutrition behavior. Additionally, in the in-group evaluations, no difference was

observed also in nutritional behavior after the intervention compared to the pre-intervention in the groups. However, the nutritional attitudes of the game group students after the intervention were determined to be more positive than before the intervention. The acquisition of new knowledge has been reported to lead to changes in attitude and these changes will also lead to better nutrition behavior.[30] Considering that the transformation of attitude into behavior is a process, it can be stated that the positive attitude that emerged in the game group has not been reflected in the nutrition behavior yet.

In conclusion, the students had a more positive nutrition attitude after the game. But The Kaledo game did not affect the nutritional self-efficacy and behavior of the students, as well as the z-score values of body mass index and body mass index. Nutrition training prepared in line with the Health Belief Model did not lead to a change in nutritional self-efficacy, attitude and behavior, as well as body mass index values, but the BMI z score of the students decreased after the training. In line with these results, there is a need for including the parents in the interventions to be made with the Kaledo game in future interventional studies, including the cooperation of the school nurse to be planned with a longer duration and larger sample, which can more clearly reveal the effect of the Kaledo game and the difference between it and the nutrition training prepared according to HBM.

Limitations of the Study

This study had some limitations. Before starting the study, the assignment to the groups was performed according to being overweight and obese in order to achieve homogenization. Due to some of the students and parents not giving their consent to participate in the study, homogenization in regards to BMI value could not be achieved in order to reach the sample number determined by power analysis. Furthermore, the study could not be completed with the determined sample number because some of the students ended their participation in the study voluntarily. Besides, due to the possibility of students being in different intervention groups in the same school and aware of each other, assignment to groups was not performed among all schools, therefore the schools were determined by lots as a research group and each school formed an intervention group. Another limitation was that parents were not included in the study.

Etik Komite Onayı: Etik kurul onayı Eskişehir Osmangazi Üniversitesi Yerel Etik Kurulu'ndan (Tarih: 27.06.2019, Sayı:12) alınmıştır.
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The Effect of Consultancy for Family Caregivers with Hip Fractures Caregiver Burden, Stress and Quality of Life

Kalça Kırığı Hastasına Bakım Veren Aile Üyelerine Uygulanan Danışmanlığın Bakım Yükü, Stres Düzeyi ve Yaşam Kalitesine Etkisi

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ABSTRACT

Objective: The study aimed to examine the effect of consultancy for family caregivers with hip fractures caregiving burden, stress and quality of life.

Methods: The study has quasi-experimental design. The family caregivers in the control group received routine care. Face-to-face and telephone counseling was offered to individuals in the intervention group. The data were collected by using a patient characteristics form, family caregiver characteristics form, Zarit Burden Interview, Caregiver Strain Index and Quality of Life Scale at baseline, discharge, post-op first month and, post-op third month.

Results: The mean scores on the caregiver burden, stress, on mental health, role mental, vitality, social functioning and general health subscales of the Quality of Life Scale of the intervention group in the first and third months after surgery were higher than the control group.

Conclusion: This study shows that counseling given by the nurse decrease caregiving burden and stress and improve the quality of life in family caregivers.

Keywords: Hip fracture, nursing, family caregiver, consultancy, caregiver burden, stress, quality of life.

ÖZ

Amaç: Bu çalışmanın amacı kalça kırığı olan aile üyesi bakım verenlere uygulanan danışmanlığın bakım verenlerin bakım yükü, stres düzeyi ve yaşam kalitesine etkisini incelemektir.

Yöntemler: Bu çalışma yarı deneysel araştırma dizaynındadır. Kontrol grubundaki bakım veren aile üyeleri rutin bakım almıştır. Girişim grubuna yüz yüze ve telefonla bireyselleştirilmiş danışmanlık yapılmıştır. Veriler; hasta tanıtım formu, bakım veren aile üyesi tanıtım formu, Zarit Bakım Yükü, Bakım Veren Stres İndeksi ve Yaşam Kalitesi ölçeği kullanılarak girişim öncesi, taburculukta, ameliyat sonrası birinci ayda ve üçüncü ayda toplanmıştır.

Bulgular: Girişim grubunun; bakım yükü, stres ve yaşam kalitesi mental sağlık, mental rol, enerji/canlılık, sosyal fonksiyon ve genel sağlık alt boyutları puan ortalamalarının birinci ve üçüncü ayda kontrol grubundan daha yüksek olduğu bulunmuştur.

Sonuç: Bu çalışma hemşire tarafından yapılan danışmanlığın bakım veren aile üyelerinin bakım yükünü ve stres düzeyini azalttığını ve yaşam kalitesini iyileştirdiğini göstermektedir.

Anahtar Kelimeler: Kalça kırığı, hemşirelik, bakım veren aile üyesi, danışmanlık, bakım yükü, stres, yaşam kalitesi

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INTRODUCTION

Hip fracture is an important health problem in older people worldwide. For patients, the healing process of hip fracture can become more complex with the physiological losses of old age, in addition to the treatment and care needs.[1] Family caregivers experience caregiving-related stress due to the lack of information about treatment and healing, unpreparedness for caregiving roles and insufficient social and financial support.[2-5] One important effect of these problems is a low quality of life (QoL). In a study,[6] on the relation between caregiving and the QoL, caregivers were found to have decreased QoL in six months of surgery for hip fracture since their social relationships are disrupted and since they experience physical and mental problems.

Several studies have suggested that people and institutions specializing in caregiving should follow and provide support for caregivers .[4,6,7] Nurses offer consultancy to individuals to protect and promote their health, to increase the their QoL and to help them recognize and use their own potentials while coping with diseases-related problems.[7-11] It is important that family caregivers should have information about how they will perform caregiving, to what extent they will contribute to caregiving and how they will access appropriate resources before taking the responsibility for caregiving. In a systematic review, informing caregivers about patient care; it has been reported that it facilitates the caregiving process, reduces the caregiver's burden and stress, and increases the QoL in caregivers of orthopedic patients.[7] The counseling given by the nurse to patients undergoing total knee replacement is effective in improving the QoL and the selfcare agency of patients.[12] To our knowledge, there have not been any studies on consultancy offered by nurses to caregivers of patients having surgery for hip fracture.

AIM

This study aimed to investigate how providing consultation to caregivers of hip fracture patients impacts their burden of caregiving, stress levels, and QoL. It is predicted that consultancy for caregivers will facilitate their care management and its maintenance, increase the QoL and reduce their care burden and stress.

METHODS

Study Design

This study has a quasi-experimental design. Randomization was not performed since family caregivers in intervention and control groups could interact with each other. The control group received routinely offered education and the intervention group was given consultancy by using an educational booklet prepared by the researchers. The counseling process was conducted both face to face and by the phone. The counseling process was carried out face to face from the patient's admission to the clinic until discharge, and by telephone at home after discharge. A systematic review focusing on caregivers for orthopedic patients reveals that the collection of data initiates from the time of hospital admission and continues through various time intervals, extending up to two years post-surgery.[7] Studies involving individuals taking care of patients with hip fractures suggest that; since hip fracture is a sudden traumatic event, caregivers have difficulties in the process and management of home care, especially in the first months after discharge, due to caregiving-related stress due to the absence of adequate information about treatment and healing, unpreparedness for caregiving roles.[5-7] Therefore, in this study, data collection time started with the patient's admission to the clinic and ended at the 3rd month after surgery. Data were first collected from the control group and then from the intervention group. Data were collected at face to-face interviews in the clinics and by phone for monitoring at home in the 1th to 3th months after surgery.

Participants

This study was carried out at a university hospital situated in the city of İzmir, located in the western region of Turkey. Inclusion criteria for participants in the study included caregivers who willingly volunteered, often being family members and literate, having the ability to speak and understand Turkish, offering care to a family member with hip fracture both in the hospital and at home, age of 18 years or older and not having the diagnosis of a psychiatric disease. Exclusion criteria for family caregivers were prior experience with caregiving for a family member with hip fracture and inability to contact caregivers for some reasons at the time the study was conducted (e.g. expressing an intention to withdraw from the study and alteration in phone number etc.).

Inclusion criteria for patients offered care were age of 60 years or older, having the ability to speak and understand Turkish, not having a hearing or speech problems and not being diagnosed with a neurological condition (Alzheimer's disease and dementia etc.) and a psychiatric condition. Exclusion criteria for patients given care were prior surgery for hip fracture, having a disability (e.g. stroke) and diagnosis of cancer.

The study's sample size was determined using G Power 3.1.9.4. To date, there is no available research on this matter with the same design as the present study. Therefore, power analysis of this study was based on the results of a quasi-experimental study by Ben-Morderchai et

al.[13] using a similar research design to the present study to examine the effects of education offered by nurses on orthopedic patients. The study's effectiveness was derived from the effect size of 80% (d: 0.81, *P*= .012) and the size of each group was found to be 30 participants.[13] Taking account of a loss of 30%, 39 participants were included into each group. Since two patients in the intervention group died and two family caregivers in the intervention group wanted to withdraw from the study, four family caregivers were excluded from the study. A caregiver was excluded from the sample because one patient in the control group died. Thus, the study was completed on a total of 7, the intervention group comprised 35 participants, while the control group had 38 participants

At the study's completion, posthoc power analysis was performed by using G Power 3.1.9.4. Based on the results of the independent groups t-test utilized to determine the difference in caregiver burden between the intervention and control groups, (d:1.19, *P*=.01), the power of the study was evaluated by using the confidence interval of 95% and was found to be 96%.

Measures

Descriptive Characteristics of Patients Form: A descriptive characteristics of patients form was prepared by the researchers. The form is composed of seven questions about age, gender, marital status, education, income, presence of chronic diseases and health insurance of the patients. [1,4]

Descriptive Characteristics of Family Caregivers Form: A descriptive characteristics of family caregivers form was created by the researchers. The form has seven questions about age, gender, marital status, education, income, presence of chronic diseases and health insurance of family caregivers.[6]

The Zarit Burden Interview: The Zarit Burden Interview (ZBI) is a Likert scale developed by Zarit et al. in 1980 to evaluate caregiver burden.[14] The scale is composed of 22 questions about physical, psychological, social and financial characteristics of caregivers. The total score on the scale is obtained by adding points for all the items and ranges from zero to 88. Scores of zero-20 indicates little or no caregiver burden, scores of 21-40 indicate mild caregiver burden, scores of 41-60 indicate moderate caregiver burden and scores of 61-88 indicate severe caregiver burden.

The validity and reliability of the ZBI for the Turkish population were tested by İnci and Erdem (2008).[15] The reported Cronbach's alpha for the scale was 0.95. In the current study, Cronbach's alpha was determined to be 0.84 upon discharge, 0.91 in the first month after surgery and 0.92 in the third month after surgery.

The Caregiver Strain Index: The Caregiver Strain Index (CSI) was developed by Robinson in 1983 to determine family members who have worries about the issue of care.[16] Cronbach's alpha on the CSI was reported to be 0.86. The index is composed of 13 items and there are two responses to each item: yes (one point) and no (zero point). The lowest and highest scores on the index can be zero and 13 respectively. Cronbach's alpha was found 0.75 for the Turkish version of the index.[17] In the present study, Cronbach's alpha for the index was found to be 0.73 on discharge, 0.81 in the first month after surgery and 0.75 in the third month after surgery.

The 36-Item Short Form Health Survey: The 36-item Short Form Health Survey (SF-36) is commonly used to assess health-related QoL. The score for each subscale ranges from zero to 100. Cronbach's alpha was reported to range from 0.73 to 0.76 for the original survey[18] and from 0.75 to 0.76 for its Turkish version.[19] In the present study, Cronbach's alpha for the survey was found to be 0.93 on discharge, 0.96 in the first month after surgery and 0.95 in the third month after surgery.

Procedure

The study had a single-blinded design to avoid biases that could arise intentionally or unintentionally and data were gathered without informing the participants about which group they were assigned into between March 2019 and July 2021. First, the data of the control group were taken. After the control group was completed, the data of the intervention group were taken.

Data prior to the intervention were obtained through the completion of Descriptive Characteristics of Patients and Caregivers forms, the ZBI, the CSI, and the SF-36 assessments before the surgery. Following the intervention, data were collected at discharge and during the first and third months post-surgery using the ZBI, the CSI, and the SF-36.

Procedure in the Control Group

The family caregivers assigned into the control group received routinely offered care. In the clinic where the study was carried out, patients and their families are not offered planned education by nurses during their hospital stay. The patients are only given a one-page brochure at discharge about post discharge homecare. The caregivers in the control group were not provided education by the researchers, but their questions (if any) were answered due to ethical principles. Besides, they were sent the education booklet when their follow-up was completed.

Procedure in the Intervention Group

After baseline data were gathered, the family caregivers assigned into the intervention group were provided with

consultancy in three stages by the first author. In the framework of the consultancy, they were given education about pre and postoperative care, and homecare for hip fracture patients in the first, second and third stages respectively. An educational booklet was prepared by the researchers and given to patients by family caregivers before surgery and after surgery and home care (Figure 1).[20,21] Each education session was face to face interview and lasted for 25-30 minutes (Figure 2).

Consultancy Content

In this study, caregivers were trained within the scope of counseling and were followed up to 3 months after surgery. In addition, within the scope of the consultancy service, caregivers were notified that they could reach out to the researcher whenever necessary, by giving them the phone number of the researcher. Caregivers needed help solving new health problems that emerged during the counseling process. For example; some of the caregivers consulted the researcher because they started having sleep problems and lacked the knowledge to resolve it. Caregivers were referred to a psychiatrist by the researcher. Some caregivers called the researcher and received consultancy services on various issues that they had difficulties in managing the patient's care or could not resolve. For instance, some patients refused to mobilize at home due to pain and fear of falling after surgery. In this context, the consultant met individually with the patient and the caregiver. The patient received information regarding the significance and necessity of mobilization, and the problem was solved by encouraging the patient to mobilize. In addition to all these, information was given to caregivers who have chronic diseases and tend to postpone their own health and check-ups about the significance and necessity of going for check-ups. Caregivers were monitored regarding their check-ups.

Data analysis

Obtained data were analyzed with the Statistical Package for Social Sciences (23.0). Kolmogorov-Smirnov test was used to test normality of the data and the test result showed evenly distributed data. Sociodemographic data were analyzed with numbers, percentages, mean, standard deviation, χ^2-test, Fisher's exact test and the independent t-test. Comparative data analyzes were made with two-factor variance analysis for repeated measures, t-test and one-way variance analysis. The statistical significance was set at $p < .05$.

Ethical considerations

Ethical approval was obtained from Dokuz Eylul University (approval number: 2016/25-03) and written permission was taken from the hospital where the study was conducted (approval number: 2917-GOA). The family caregivers were given information about the aim of the study and their oral and written informed consent was obtained.

RESULTS

The intervention and control groups patients were found to be similar in terms of their sociodemographic features (*P*>.05) (Table 1).

Table 1. Comparison of Patients in the Intervention and Control Groups According to Descriptive and Clinical Characteristics

Characteristics	Intervention Group (n:35) $\bar{X}$±SS (min-max)	Control Groups (n:38) $\bar{X}$±SS (min-max)	Test	*P*
Age	68.50 ± 8.53 (60-90)	67.86 ± 7.64 (60-85)	t= 1.036	.734
	n (%)	**n (%)**	**X^2**	
Gender				
Female	27 (77.10)	31 (81.60)	0.220	.639
Male	8 (22.90)	7 (18.40)		
Marital status				
Married	23 (65.70)	28 (73.70)	0.550	.458
Single	12 (34.30)	10 (26.30)		
Education				
Primary education	27 (77.10)	31 (81.60)		
High school	5 (14.30)	4 (10.50)	0.899	.214
University or higher education levels	3 (8.60)	3 (7.90)		
Income				
Lower than expenses	11 (31.40)	17 (44.70)		
Equal to expenses	24 (68.60)	21 (55.30)	1.365	
Higher than expenses	0 (0)	0 (0)		

Table 1. Comparison of Patients in the Intervention and Control Groups According to Descriptive and Clinical Characteristics (Contunied)

Characteristics	Intervention Group (n:35) $\bar{X}$±SS (min-max)	Control Groups (n:38) $\bar{X}$±SS (min-max)	Test	*P*
Presence of a chronic disease				
Yes	30 (85.70)	32 (84.20)	0.520	.820
No	5 (14.30)	6 (15.80)		
Health Insurance				
Yes	32 (91.40)	33 (86.80)	0.531	.393
No	3 (8.60)	5 (13.20)		

$X^{2:}$ Fisher's exact test was used since the expected cell count is lower than 5.

Table 2. Comparison of Family Caregivers in the Intervention and Control Groups According to Descriptive and Clinical Characteristics

Characteristics	Intervention Group (n:35) $\bar{X}$±SS (min-max)	Control Group (n:38) $\bar{X}$±SS (min-max)	Test	*P*
Age	50.62 ± 10.94 (24-72)	47.36 ± 14.04 (21-76)	t= -1.099	.275
	n (%)	**n (%)**	**X^2**	
Gender				
Female	27 (77.10)	36 (94.70)	5.022	**.041***
Male	8 (22.90)	2 (5.30)		
Marital status				
Married	32 (91.40)	22 (57.90)	10.641	**.001***
Single	3 (8.60)	16 (42.10)		
Education				
Primary education	21 (60)	12 (31.60)		
High school	6 (17.10)	14 (36.80)	6.342	.042*
University or higher education levels	8 (22.90)	12 (31.60)		
Occupation				
Housewife	19 (54.30)	17 (44.70)	2.044	.360
Worker	6 (17.10)	12 (31.60)		
Retired	10 (28.60)	9 (23.70)		
Income				
Lower than expenses	11 (31.40)	17 (44.70)		
Equal to expenses	24 (68.60)	21 (55.30)	1.365	.243
Higher than expenses	0 (0)	0 (0)		
Presence of a chronic disease				
Yes	13 (37.10)	11 (28.90)		
No	22 (62.90)	27 (71.10)	0.555	.456
Degree of relation				
Spouse	6 (17.10)	7 (18.40)		
Daughter	16 (45.70)	23 (60.50)	4.328	.228
Daughter-in-law	4 (11.40)	5 (13.20)		
Son	7 (25.70)	3 (7.90)		
Receiving support for care				
Yes	28 (80)	24 (63.20)	2.522	.112
No	7 (20)	14 (36.80)		
Person providing support for care				
Spouse	8 (22.90)	4 (10.50)		
Sibling	17 (48.60)	20 (52.60)	6.798	.079
None	7 (20)	14 (36.80)		
Reason for caregiving				
Familial responsibility	22 (62.90)	25 (65.80)		
Absence of a person to look after the patient	13 (37.10)	13 (34.20)	1.364	.243
Difficulty in paying for healthcare costs				
Yes	3 (8.60)	5 (13.20)		
No	32 (91.40)	33 (86.80)	4.507	.123

$X^{2:}$ Fisher's exact test was used since the expected cell count is lower than 5, $*P < .05$

Table 3. Comparison of the Zarit Burden Interview and the Caregiver Strain Index Scores of the Family Caregivers in the Intervention and Control Groups

Time Group	Baseline $\bar{X}$±SD	On discharge $\bar{X}$±SD	1st month after surgery $\bar{X}$±SD	3rd month after surgery $\bar{X}$±SD		F	*P*	Eta square	Bonferroni correction test
				Zarit burden interview					
Intervention	8.74 ±1.88	18.34±8.02	14.20± 10.94	7.85 ± 5.67		32.000	<.001	.408	1< 2
									1<3
Control	8.73 ± 1.94	23.42± 11.02	23.81 ± 14.20	21.26 ± 14.60		18.975	<.001	.337	2<4
									3<4
					Group	20.645	<.001	.225	
t	0.130	2.234	3.219	5.087	**Time**	29.966	<.001	.297	
P	.989	.029	.002	<.001	**Group by Time**	5.618	<.001	.108	
				Caregiver strain index					
Intervention	6.08 ± 1.91	5.85 ± 1.81	3.08± 2.35	2.08 ± 2.42		37.287	<.001	.523	1<3
									1<4
Control	6.57 ± 2.51	6.21 ± 2.04	5.84 ± 2.89	5.47 ± 2.66		1.500	.231	.390	2<3
					Group	27.739	<.001	.281	2<4
t	.938	113	4.434	5.656	**Time**	22.993	<.001	.245	
P	.352	.439	<.001	<.001	**Group by Time**	9.174	<.001	.114	

F = repeated measures one-way variance analysis, t-test (independent groups t-test), p<.05 1: at baseline, 2: on discharge, 3:1st month 4: 3rd month

Table 4. Comparison of the SF-36 Quality of Life Scale Scores of the Patients in the Intervention and Control Group

Dependent Variable	Group	Baseline X̄±SD	On discharge X̄±SS	1st month X̄±SD	3rd month X̄±SD		F	*P*	Eta square	Bonferroni correction test
Physical Functioning	**Intervention**	90 ± 20.29	88.57 ± 21.30	92.85 ± 17.75	92.85 ± 17.15	**Group**	.567	.527	.075	
	Control	90.78 ± 19.64	88.15 ± 21.54	89.47 ± 20.65	90.65 ± 19.59	**Time**	.168	.899	.060	
	t	-0.169	-0.082	-0.747	-0.501	**Group by Time**	.192	.663	.005	
	P	.866	.935	.457	.618		.510	.629	.066	
							.200	.850	.001	
Physical Roles	**Intervention**	80 ± 35.25	77.14 ± 42.60	72.85 ± 37.06	84.28 ± 23.55	**Group**	.752	.460	.026	
	Control	77.63± 36.66	68.42 ± 47.10	69.73 ± 39.48	75 ± 25.33	**Time**	.577	.610	.011	
	t	-.281	-.827	-.347	-1.618	**Group by Time**	1.323	.254	.007	
	P	.780	.411	.729	.110		1.109	.339	.015	
							.207	.846	.003	
Mental Health	**Intervention**	68.11 ± 3.12	62.28 ± 20.83	65.82 ± 18.77	72.68 ± 13.90	**Group**	4.026	.020	.106	1<2
	Control	64.84 ± 2.95	59.15 ± 19.19	52.73 ± 21.38	59.15 ± 18.90	**Time**	3.004	.058	.075	2<4
	t	-.760	-.668	-2.770	-3.458	**Group by Time**	7.069	.010	.091	3<4
	P	.450	.507	.007	.001		4.003	.018	.053	
							2.585	.075	.035	
Mental Role	**Intervention**	56.42 ± 7.96	49.52 ± 50.07	61.42 ± 45.83	68.57 ± 54.41	**Group**	1.953	.150	.033	
	Control	40.78 ± 7,32	34.21 ± 48.07	38.21 ± 48.07	46.45 ± 48.88	**Time**	.998	.397	.026	
	t	-1.1482	-1.333	-3.379	-2.238	**Group by Time**	9.006	.004	.109	
	P	.152	.187	.001	.038		2.013	.137	.023	
							1.226	.301	.017	
Vitality	**Intervention**	64 ± 14.18	60.28 ± 15.52	64 ± 17.14	69.57 ± 13.79	**Group**	6.427	.004	.159	1<2
	Control	58.94 ± 17.52	51.57 ± 22.66	48.81 ± 20.21	54.47 ± 19.72	**Time**	5.244	.004	.124	2<4
	t	-1.347	-1.899	-3.446	-3.760	**Group by Time**	9.205	.003	.115	3<4
							6.991	.001	.090	
	P	.182	.062	.001	<.001					

Table 4. Comparison of the SF-36 Quality of Life Scale Scores of the Patients in the Intervention and Control Group (contunied)

Dependent Variable	Group	Baseline $\bar{X}$±SD	On discharge $\bar{X}$±SS	1st month $\bar{X}$±SD	3rd month $\bar{X}$±SD		F	*P*	Eta square	Bonferroni correction test
Social Functioning	**Intervention**	71.85 ±24.37	68.92 ± 21.72	76.78 ± 26.10	78.78 ± 23.17	**Group**	1.735	.174	.049	
	Control	70.06 ± 23.04	66.44 ± 25.18	61.84 ± 25.42	65.65 ± 22.91	**Time**	.648	.569	.025	
	t	-.323	-.449	-2.381	-2.432	**Group by Time**	4.517	.037	.060	
	P	.748	.655	.020	.018		.648	.569	.009	
							1.993	.123	.027	
Pain	**Intervention**	64.35 ± 3.52	57.07 ± 24.02	67 ± 28.90	75.21 ± 28.99	**Group**	3.369	.032	.090	1<2
	Control	66.18 ± 4.26	58.88 ± 28.20	62.10 ± 28.90	63.61 ± 31.70	**Time**	.762	.485	.020	2<4
	t	.327	.294	-.723	-1.626	**Group by Time**	.516	.475	.007	
	P	.744	.770	.472	.108		3.133	.037	.042	
							1.443	.237	.020	
General Health	**Intervention**	62.42 ± 15.50	56.57 ± 18.54	70.28 ± 16.84	74.85 ± 15.36	**Group**	13.402	<.001	.283	1<2
	Control	64.34 ± 16.93	59.47 ± 18.48	55.65 ± 23.28	58.81 ± 19.91	**Time**	3.174	.042	.079	1<3
	t	.502	.669	-3.052	-3.830	**Group by Time**	3.558	.063	.048	1<4
	P	.617	.506	.003	<.001		5.580	.001	.076	2<3
							11.774	<.001	.142	2<4
Summary Physical Health Score	**Intervention**	74.56 ± 18.75	69.50 ± 11.20	75.24 ± 14.06	81.25 ± 19.72	**Group**	1.912	.132	.053	
	Control	74.25 ± 19.13	68.25 ± 13.14	68.75 ± 13.21	71.50 ± 12.60	**Time**	.225	.827	.016	
	t	0.485	0.621	0.200	-1.689	**Group by Time**	.008	.931	<.001	
	P	0.629	0.537	0.842	0.096		.562	.599	.021	
							1.544.	.213	.008	
Summary Mental Health Score	**Intervention**	43.89 ± 10.63	40.98 ± 11.05	45.71 ± 8.06	46.61 ± 11.15	**Group**	3.153	.040	.085	
	Control	39.76 ± 10.98	36.60 ± 8.79	34.74 ± 9.03	38.49 ± 11.49	**Time**	2.087	.118	.53	2<3
	t	-1.881	-1.622	-5.454	-3.104	**Group by Time**	19.382	**<.**001	.214	2<4
							2.620	.060	.036	
							2.477	.071	.034	
	P	.64	.109	<.001	.003					

F = repeated measures one-way variance analysis, t-test (independent groups t-test), *P*<.05 1: at baseline, 2: on discharge, 3:1st month, 4: 3rd month

The family caregivers in the intervention group and those in the control group significantly differed in terms of gender, marital status and education (*P*<.05), but they were similar with respect to the rest of the descriptive characteristics (*P*>.05), (Table 2).

The mean scores of the intervention and control groups on the ZBI at baseline, on discharge and in the first and third months after surgery are presented in Table 3. While ZBI mean scores were low or absent in all measurements in the intervention group, care burden was found to be at a moderate level in the control group at discharge, 1 month and 3 months after surgery. There was a significant difference between the groups in terms of group (p<.001), time (*P*<.001) and group by time (*P*<.001) interactions. The intervention group had a significantly lower caregiver burden than the control group.

The mean scores of the intervention and control groups on the CSI at baseline, on discharge and in the first and third months after surgery are shown in Table 3. Although the intervention and control groups significantly differed regarding group (*P*<.001), time (*P*<.001) and group by time (*P*<.001) interactions, neither of the groups were found to have stress. Nevertheless, the intervention group received significantly lower stress scores than the control group.

The mean scores of the subscales of the SF-36 -mental health, mental role, vitality, social function, bodily pain, general health and summary mental health scores- at baseline, on discharge and in the first and third months after surgery were significantly different between the intervention and control groups (*P*<.05, Table 4). No significant difference was found in physical function, physical role and summary physical health scores between the groups (*P*>.05, Table 4).

The intervention group received higher mean scores on mental health, mental role, vitality, social function, bodily pain and general health subscales of the SF-36 on discharge and in the first and third months after the intervention (Table 4).

DISCUSSION

In this study, the effect of counseling given to the family caregiver by nurses to on their caregiving burden, stress levels, and QoL outcomes was evaluated. In this study, it was found that caregivers who received counseling had higher QoL and lower care burden and stress levels than those who did not receive counseling.

In the literature, there are several interventions to help family caregivers manage and maintain the caregiving process like home-based rehabilitation, family care model and consultancy. However, there is not an agreement on the superiority of these interventions to each other. It is also reported that interventions directed towards caregivers can vary with countries, regions and culture.[22,23] In the present study, the intervention group had a significantly lower caregiver burden than the control group. Likewise, in a randomized study, the patients given home-based therapy in the first year after hip fracture had better functional status than those without home-based therapy and their caregivers had significantly less caregiving burden.[24] Besides, Samsuddin et al. [25] demonstrated that education given to caregivers of patients with total knee replacement reduced caregiver burden.[25] Although different methods are used in studies performed to decrease caregiver burden, they are directed towards achieving the same goal. It has been stated in the literature that offering information to caregivers about homecare can help them manage difficulties likely to arise during homecare well, improve patient care and thus decrease caregiver burden.[26] It may be that education given in the framework of consultancy facilitated management and maintenance of homecare.

An important point about the present study is that the caregivers both in both groups had lower burden scores than those revealed in other studies. In this study, the intervention group had little or no caregiver burden on discharge and in the first and third months after surgery and the control group had mild caregiver burden in the first and third months after surgery. Parry et al.[5] reported that 27% of the caregivers of hip fracture patients had severe caregiver burden in the third month after surgery. Vega et al.[26] showed that 50% of the caregivers of the patients with surgery for hip fracture had severe caregiver burden in the first month after surgery and that 36% of the caregivers still had severe burden in the third month after surgery. Lower caregiver burden found both groups in the current study can be explained by the fact that over 60% of the caregivers considered caregiving as familial responsibility, which is very common in Turkish culture, and that they might have received support for caregiving from other members of the family.

In the present study, although the caregivers in the intervention and control group did not feel stressed, their mean stress scores were significantly different and the intervention group had a lower mean score on the CSI. Consistent with this finding, Nahm et al.[27] discovered that online education offered to caregivers of hip fracture patients improved their information about the caregiving process but did not have an effect on their stress levels, and the caregivers did not experience stress before and after the intervention. However, Longo et al.[7] reported that caregivers of hip fracture patients had high stress levels in

the postoperative period but that their stress levels decreased with functional improvement of the patients. In a cohort study, caregivers of hip fracture patients were found to experience stress from admission of the patients to hospital until the sixth month after surgery.[28]

There are several reasons why the consultancy intervention offered in the present study was ineffective in stress levels of the caregivers. First, in Turkish culture, families take the responsibility of giving care to ill family members. Therefore, the caregivers might have perceived the caregiving process as a familial responsibility. Second, the caregivers in both groups were housewives. Therefore, they cannot have experienced work-related stress. Finally, almost all the patients in each groups had a health insurance. Therefore, the caregivers did not face financial difficulty.

In the present study, the intervention group was found to have higher scores on the SF-36 subscales of mental health, mental role, social function, vitality, general health and summary mental health than the control group. In a systematic review reported that education about patient care facilitated the caregiving process and enhanced the QoL in caregivers of orthopedic patients.[7] Tseng et al.[29] (2021) found that patients given family-centered care had better health status than those given standard care and that their family caregivers had a higher QoL. Schulz et al.[30] stated that consultancy and education offered to the caregivers improved their the QoL. In the present study, the higher QoL in the intervention group can be attributed to the improved adaptability of the caregivers to changing conditions and their new roles and their improved ability to manage and maintain the caregiving process thanks to the consultancy offered to them.

Another finding of the present study there was no difference in the physical function, pain, physical role and summary physical health score between the groups. Cross et al.[31] stated that educational interventions may not be effective on the QoL. Since the QoL scale has a multidimensional structure, educational interventions may not affect its each dimension.

Limitations

The study was performed in a single center. This limits the generalizability of its results. Also, the study did not have a randomized controlled design due to possible interactions between the family caregivers in the clinic. Besides, general and functional health status of the patients could not be evaluated. It can be recommended that further studies should also focus the relation between general and functional health status of caregivers and the effect of consultancy on caregiver burden, stress and QoL.

The present study revealed that consultancy for family caregivers of hip fracture patients was effective in reduced of caregiver burden and stress and improvement of the QoL.

With health and social life-related technological developments have become popular especially with new generations. Therefore, it can be suggested that further studies should be conducted to allow caregivers of hip fracture patients to easily access information through technological applications.

Etik Komite Onayı: Dokuz Eylül Üniversitesi Girişimsel Olmayan Araştırmalar Etik Kurulu (onay numarası: onay numarası: 2016/25-03) çalışma protokolünü onayladı.
Bilgilendirilmiş Onam: Ailenin bakım verenlerine çalışmanın amacı hakkında bilgi verildi ve sözlü ve yazılı onamları alındı.
Hakem Değerlendirmesi: Dış bağımsız.
Yazar Katkıları: Fikir – BC, OB; Tasarım - BC, OB; Denetim - BC, OB; Kaynaklar - BC, OB; Materyaller - BC, OB; Veri Toplanması ve/veya İşlemesi - BC; Analiz ve/veya Yorum - BC; Literatür Taraması - BC, OB; Makalenin Yazılması - BC, OB; Eleştirel İnceleme - BC, OB
Çıkar Çatışması: Yazar(lar) bu makalenin araştırılması, yazarlığı ve/veya yayınlanmasıyla ilgili olarak herhangi bir potansiyel çıkar çatışması beyan etmemiştir.
Finansal Destek: Yazar(lar) bu makalenin araştırılması, yazarlığı ve/veya yayınlanması için herhangi bir mali destek almamıştır.
Bu çalışma bir doktora tezidir.

Ethics Committee Approval: The Dokuz Eylul University Non-Invasive Research Ethical Committee (approval number: approval number: 2016/25-03) approved the study protocol.
Informed Consent: The family caregivers were given information about the aim of the study and their oral and written informed consent was obtained
Peer-review: Externally peer-reviewed.
Author Contributions: Concept – BC, OB; Design - BC, OB; Supervision - BC, OB; Resources - BC, OB; Materials - BC, OB; Data Collection and/or Processing - BC; Analysis and/or Interpretation - BC; Literature Search - BC, OB; Writing Manuscript - BC, OB; Critical Review - BC, OB
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Psychosocial Care Needs of Individuals Receiving Hemodialysis Treatment: A Qualitative Study

Hemodiyaliz Tedavisi Uygulanan Bireylerin Psikososyal Bakım Gereksinimleri: Nitel bir çalışma

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ABSTRACT

Objective: This study was conducted to determine the psychosocial care needs of individuals undergoing hemodialysis. It is important to assess and identify the needs of this specific population.

Methods: A semi-structured questionnaire form was used in the study and 12 participants were included in the study. This qualitative descriptive study has a phenomenological design.

Results: In the study, 3 contexts, 6 themes and 38 sub-themes emerged. The contexts were as follows: problems developing due to the disease (complications and symptoms), healthcare-related needs (the health worker the patient wants to care for him or her, treatment- and care-related needs, the characteristics of the caregiver), and the mechanisms for coping with the disease (support systems and coping behaviours related to the disease).

Conclusion: In the study, hemodialysis patients stated that they suffered many psychosocial and physical problems. Determining the psychosocial needs of hemodialysis patients and implementing related interventions can positively affect the course of the disease. Nurses assume the most important role in the determination of these psychosocial problems and implementation of the necessary interventions. Nurses have crucial roles and responsibilities in the care of dialysis patients. Effective nursing care can reduce disease-related side effects and improve patients' quality of life. Patient-centered care can improve the quality of dialysis care and patient satisfaction.

Keywords: Hemodialysis patients, nurse, nursing, psychosocial problems

ÖZ

Amaç: Bu çalışma hemodiyaliz tedavisi uygulanan bireylerin psikososyal bakım gereksinimlerini belirlemek amacıyla yapılmıştır. Bu özel popülasyonun ihtiyaçlarının değerlendirilmesi ve belirlenmesi önemli bir durumdur.

Yöntemler: Bu çalışma, betimleyici, fenomenolojik desende nitel olarak yapılmıştır. Çalışmada yarı yapılandırılmış anket formu kullanılmış ve 12 katılımcı çalışmaya dahil edilmiştir.

Bulgular: Çalışmada 3 bağlam, 6 tema ve 38 alt tema ortaya çıkmıştır. Hastalığa bağlı gelişen sorunlar (komplikasyonlar ve semptomlar), bakıma yönelik ihtiyaçlar (size bakım vermesini istediğiniz sağlık çalışanı, tedavi ve bakıma yönelik gereksinimler, bakım vericinin özellikleri) hastalıkla başa çıkma mekanizmaları (destek sistemleri ve hastalıkla başa çıkma davranışları) olarak temalar belirlenmiştir.

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Sonuç: Çalışmada hemodiyaliz hastaları birçok psikososyal ve fiziksel sorunla karşılaştıklarını ifade etmiştir. Hemodiyaliz hastalarının psikososyal gereksinimlerinin belirlenmesi ve buna yönelik müdahalelerin uygulanması hastalığın seyrini olumlu yönde etkileyebilir. Bu psikososyal sorunların belirlenip gerekli müdahalelerin uygulanmasında en önemli rol hemşirelere düşmektedir. Hemşireler diyaliz hastalarının bakımında önemli görev ve sorumluluklara sahiptir. Etkili hemşirelik bakımı hastaların hastalıkla ilgili yan etkilerini azaltabilir ve yaşam kalitesini arttırabilir. Hasta merkezli hemşirelik bakımı hastaların diyaliz bakımının kalitesini ve hasta memnuniyetini artırabilir.

Anahtar Kelimeler: Hemodiyaliz hastaları, hemşire, psikososyal sorunlar

INTRODUCTION

Chronic renal failure (CRF) which creates a global burden in the world is currently considered among the twenty causes of death.[1,2] However, renal replacement therapies such as hemodialysis continue to increase worldwide.[3] CRF has become a widespread public health problem both in Turkey and in the other countries of the world. [4] According to the data released by the Turkish Society of Nephrology, the prevalence of kidney diseases is increasing dramatically. There are approximately patients about 76% awaiting kidney transplantation and undergoing dialysis in Turkey.[5-7] Hemodialysis patients have to cope with numerous psychological problems in this process.[8] Hemodialysis can cause individuals to experience different emotions such as stress, anxiety, depression, as well as hopelessness and similar negative emotions.[8] As is stated in several studies, most of the patients receiving hemodialysis treatment suffer psychological problems such as depression and anxiety during dialysis treatment, which leads to an increase in mortality and morbidity rates.[9, 10] In addition, it was determined that the quality of life of the patients decreased due to several factors in this process. [11] Although several measures are taken to alleviate the problems experienced by sufferers, these are not adequate.[12]

Due to the complications of dialysis therapy, patients undergoing such treatment are likely to experience comorbidities, including hypertension, diabetes, cardiovascular diseases, frequent hospitalizations, and higher mortality rates.[11, 13] The chronic nature of treatment urges us to deal with patients' physical and psychosocial issues strictly.[14] The increased risk of complications, morbidity and mortality in hemodialysis patients is associated with decreased quality of life. Since patients' activities of daily living are restricted, their physical and psychological quality of life is adversely affected.[15]

During the treatment process, patients may experience not only physical and psychological symptoms such as pain, nausea, itching, fatigue, loss of appetite, shortness of breath, muscle cramps, weakness, depression, sleep disorders but also social problems.[13, 16] In this process, patients' characteristics such as age, marital status, education level, economic status, family support may affect their compliance and satisfaction with the treatment.[17] Individuals may turn to religious beliefs and practices to alleviate the symptoms they experience and to relax emotionally.[18] In this sense, spirituality and turning to religion are a potential resource for the protection of mental health and are perceived as a coping mechanism for stressful life experiences.[19] In several studies, spirituality has been stated as an important variable that increases the psychological resilience of individuals.[20] However, the number of studies in which the relationship between mental well-being and psychological resilience in hemodialysis patients is investigated is very few.[21, 22]

Nurses have crucial roles and responsibilities in the care of dialysis patients. Effective nursing care can reduce disease-related side effects and improve patients' quality of life. Nurses are capable of minimizing the negative effects of the disease process on individuals, increasing their psychological resilience and quality of life by using their roles such as counseling, guidance, education, psychosocial and spiritual care.[4] However, in order to ensure effective, quality and patient-centered care, nurses should determine the psychosocial needs of patients, and should provide holistic care for their needs. Hemodialysis patients are among the at-risk groups that need holistic nursing approach and psychosocial care the most.

AIM

The present study was planned to determine the psychosocial care needs of individuals receiving hemodialysis treatment.

METHODS

Study design

This qualitative study with a phenomenological design was conducted to determine the psychosocial care needs of individuals undergoing hemodialysis. Data were collected through in-depth interviews using a semi-structured questionnaire. The data were gathered and reported according to the checklist created by the Consolidated Criteria for Qualitative Studies (COREQ) [23]

Participants and setting

Hemodialysis patients over 18 years of age, diagnosed with chronic kidney failure, actively undergoing hemodialysis treatment three days a week, volunteering to participate in the study were included in the study. Patients undergoing dialysis in a private dialysis center in a province in the north of Turkey comprised the sample of the study. After the preliminary interview, in which the purpose of the study was explained to the patients and permission for communication was requested from them, face-to-face interviews were conducted with them. Interviews were terminated when the concepts that could answer the research questions began to repeat (12 patients).

Data collection, analyses, and synthesis

The present study conducted by the researchers trained in qualitative research. A semi-structured questionnaire was developed in line with the literature.[24-26] The interviews were held between October 24, 2022 and November 24, 2022. In order to prove the accuracy of the data obtained during the interviews, we, the researchers, repeated and summarized what the participants said to find out whether they were correctly understood. The data was then transcribed. Then we, the researchers, read the transcripts several times. Then we analyzed the data in Maxqda 20 program. After the analysis, we obtained 3 contexts, 6 themes and 38 sub-themes. All the data analysis was made and reported in Turkish.

Ethical approval

Before the study was conducted, ethical approval was obtained from the Human Research Ethics Committee of Sinop University to conduct it (decision number: 2022/169, decision date: October 19, 2022). The study was carried out in accordance with the ethical standards established in the Declaration of Helsinki. Before their verbal consent was obtained, all the participants were informed that the interviews would be recorded and they were ensured that all the records would be kept confidential. Then the data of the participants and the interview videos were encrypted and stored on the personal computer of the researchers.

RESULTS

Descriptive Characteristics of the patients were given in Table 1. In Table 2, 3 contexts, 6 themes and 38 sub-themes were presented. The contexts were as follows: problems developing due to the disease, needs for healthcare and mechanisms for coping with the disease (Table 2).

Qualitative findings

Context 1. Problems developing due to the disease

Theme 1. Symptoms and Complications

In Theme 1, there are 22 sub-themes. In this theme, the patients stated that they experienced the following complications due to the disease; Desire to die, Unhappiness, Hopelessness, Loneliness, Poor quality of life, Vision problems, Stress, Fatigue, Regret (thinking that the disease is a punishment given by God), Not accepting the disease (denying), Diet distress, Pain, Economic distress, Unemployment, Social isolation, Insecurity, Stigma, Worthlessness, Limitation, Fear, Panic attacks, and Physical inadequacy.

The patients stated that they wanted to die in this process and that death was a salvation for them.

“I feel like I am a living dead person. I cannot cook; I cannot walk either. Bread and olives are enough for me to be fed. What makes me feel offended is that you fall out of favor when you are sick, when you cannot work, or when you are out of money.

There were so many people around me, but now, there is no one left. Even my own parents don't want me. My mother told me “my leftover foods are enough for you, you eat them. I've been undergoing hemodialysis for 3 years.

I am dependent on both this machine and people. Without this machine, I am like a dead body; without my mother's leftovers, I am dead. My mom treated me like garbage. I don't want to live either. I wish I had died. I wish I had died instead of living so needy. I want to die." [P (Patient) 2]

“Death is near us. We are half-human. One day we will go. Until then, we are passing our days.” (P 6)

“There is no cure for this disease. I am feeble. I'm so worn out. I have no dreams but to wait for my death. I have neither dreams nor pleasure in life. I have no appetite. I even do not want to eat. I am just too much thirsty. I'm bored. I get the heebie-jeebies (Patient was crying at that moment)”. (P 7)

We observed that the participants wanted to die in particular in this process because of the emotional intensity they experienced due to the disease-induced vision problem that developed.

“Sometimes I think I'm the problem. I say if I were not alive, if I died, the problem would go away. I am half the person. I’m like a dead body. I’m like garbage. I can't see you right now. I see you like a shadow. It's like there's a darkness in front of me, I can only feel your shadow. My life is like this darkness too. I always have a headache. My doctor said it was because of stress. I also feel terribly fatigued. I find it hard to get home. I am very tired after dialysis. I hardly wake up on my way here. I'm too exhausted." (P 2)

“What my dream is to die. I am waiting for death. Being alone is difficult. I can't make a phone call because I can’t see. How would I feel good! I am no different from a dead

body; this is my life. What is wealth? What would you do even if the world were yours if you are not healthy? I've had several surgeries. "Don't get your hopes up" what the doctor said to me the last time" (P 5)

In this process, patients think that their illness is a punishment given to them by God as the price of their sins. *"When I was young, everything was different. I lived a fast life; I made mistakes. Maybe that's why I have this disease. It is the penalty of my fast life. I drank alcohol a lot; I am sick because of that. I lived a fast life. I have sinned. When I was young, I had money; I was healthy.*

I didn't think I would be like this. God tested me. He said "get a hold of yourself". He stopped me; He made me like this." (P 6)

"I am asking why I have this disease. Why me. I always ask I think. What did I do wrong and God gave it to me. I always think about my past. I feel uncomfortable. I pray to God." (P 10)

Table 1. Participants Descriptive Characteristics

Participants	Age	Gender	Marital Status	The number of children	Education	Occupation	Length of treatment (years)	Chronic disease	General health status	Having social security	Religion
P1	62	Female	Married	3	Primary school	Housewife	8	*DM	Moderate	Yes	Muslim
P2	42	Male	Single	2	Senior high school	Retired	3	*DM, ** CRF	Poor	Yes	Muslim
P3	56	Male	Married	1	Junior high school	Retired	8	*DM	Poor	Yes	Muslim
P4	56	Female	Married	2	Junior high school	Retired	6	*** CAD *DM	Poor	Yes	Muslim
P5	68	Female	Married	3	Primary school	Housewife	10	*DM ****HT	Poor	Yes	Muslim
P6	49	Male	Married	1	Primary school	Retired	7	*DM	Poor	Yes	Muslim
P7	71	Female	Married	3	Primary school	Housewife	17	*DM, *** CAD	Poor	Yes	Muslim
P8	56	Male	Single	0	Senior high school	Retired	5	*DM, ** CRF	Moderate	Yes	Muslim
P9	58	Male	Married	2	Primary school	Retired	9	*DM, ****HT	Poor	Yes	Muslim
P10	66	Female	Married	2	Junior high school	Housewife	12	*DM	Poor	Yes	Muslim
P11	53	Male	Married	2	Senior high school	Retired	7	*DM	Poor	Yes	Muslim
P12	65	Female	Married	3	Junior high school	Retired	13	*DM	Poor	Yes	Muslim

*DM=Diabetes Mellitus, ** CRF= Chronic Renal Failure, *** CAD = Coronary Artery Disease, ****HT= Hypertension

The participants stated that they experienced problems due to diet during this period, they could not eat or drink what they wanted, and they experienced different symptoms related to the disease.

"You can't imagine what problems I've had. My kidneys hurt. My feet are numb. I have palpitations in my heart. I cannot breathe. I long for a glass of water. I cannot sleep. They called it a panic attack. Psychologically, I am restless. I get angry at anything." (P 3) "I suffer from dizziness, weakness, nausea. My feet are swelling. My blood pressure is dropping. It's because of diabetes. This dialysis is a beautiful thing. I used to wear diapers. Hard to say, but I used to wet my pants. Now I don't wear diapers. I'm on dialysis. I don't wet my pants anymore." (P 4)

"I have this problem because of diabetes. I had borderline diabetes. I have pain in my feet. I can't drink water. I can't drink even a glass of water (the patient was displaying an angry attitude). Just a glass of water. Water; it's water. I'm afraid while drinking even a glass of water, I can't drink it. This is pushing me hard. Trouble, trouble, trouble!!! Eating is trouble; drinking is trouble. God gives us olives and

cheese. I can't eat them, even if I have them? I need a glass of water. I'm longing for a cup of tea. I ask the girl (caregiver) to get me a glass of cold water. Let me drink it to my heart's content." (P 9)

"I get very thirsty in summer. I crave for water. I have no problem with eating". (P 11)

The participants stated that they were stigmatized, excluded, restricted, they had panic attacks, and they experienced social isolation due to the disease.

"Now they ignore me when health is gone. My daughter in law does not give me even a spoonful of food. She does not give me a cup of tea. She does not take me to their home. They look after me here. What would I do when I don't see a backyard or garden? Anyway, it wouldn't help either. I sleep nonstop. I wish my eyes were not like this. They used to love me. They used to say, "You have blue eyes. Oh, how beautiful your eyes are." Anyway, these eyes are worthless if you can't see." (P 5)

Table 2. Qualitative Opinions of the Patients

Problems developing due to the disease	**Symptoms and Complications**	Desire to die Unhappiness Hopelessness Loneliness Quality of life Vision problem Stress Fatigue Regret (punishment from God Not accepting the disease (Denial) Diet distress Economic distress Pain Unemployment Social isolation Insecurity Stigma Unworthiness Restriction Fear Panic Attack Physical inadequacy
Healthcare-related needs	**Healthcare worker you want to care for needs for treatment and care**	Nurse
	Treatment and care-related needs	Home care Being able to see Desire to be transplanted
	Characteristics of the caregiver	Smiling face Showing interest Being understanding
Mechanisms for coping with the disease	**Support systems**	Family Spouse Health worker
	Coping behaviors	Surrendering to God and destiny Hope Rendering thanks to God Faith Saying Prayers Psychological support

"We, my family and I, have been very worn out in this process. My wife doesn't understand me. For one thing, I am very tired. I can't work, I can't do my work. I can't eat what I want. I can't drink water to my heart's content. I can't eat fruit. We are excluded from society." (P 6)

"I am dependent on others. Time doesn't pass. You can't do anything you want, you're dependent. It limits you. We can't eat and drink as you do. You are restricted in every way; you are here (dialysis center) every other day." (P 8)

"Everything was beautiful when I was young. Everything is good if you're healthy. Life seems empty to me. I have neither desire nor wish for anything. My only wish is to have my health back." (P 9)

"We are exhausted here (dialysis center). We are tired. As long as we are on dialysis, we are exhausted every day. We are here every day, every other day. The dialysis machine is tiring. I had a panic attack. My heart flutters as if I am afraid of something, and my blood pressure rises. When I go to bed, I can't sleep because of fear. Fluttering begins at night when I go to bed. It happens at night when I go to bed. I can't sleep." (P 10)

Context 2. Healthcare-related needs

Theme 2. Health worker you want to care for you needs for treatment and care

In this theme, the participants stated that the health workers they trusted most and wanted to care for them were nurses.

"I want my caregivers to be nurses. Anyway, all people here are nurses. They are so good. We have been like a family for eight years. My nurse knows how I am from my look. She takes care of me. She always has a smiling face. She asks how I am. The whole team is good here. The current care I receive is enough for me. What else do I need? I feel family warmth here. Being here prevents me from feeling like a stranger." (P 1)

"I was crying some time ago. Nurses said, aunt (in Turkey, young people call elder women aunt), don't worry, this is your other home. They said we are like your daughters. We spend most of our day here. They're very sweet, as sweet as you." (P 10)

Theme 3. Treatment- and care-related needs

In this theme, the participants stated that they wanted to receive care at home, to be able to see and to have a kidney transplant.

"I just want to have a kidney transplant. My husband was diagnosed with cancer. We went to Ankara. My husband can donate his kidney. He's my only hope. My only hope his donating. If the donor is a living person, compliance chance is high." (P 1)

"My only dream is to be able to see again. If I could see even a little bit, it would be enough for me." (P 2)

"I want them to listen to me; to understand me, my anger, my pain. You can't trust anyone these days. Everyone leaves you on your bad day. We were in the transplant waiting list. They say the list is too long. They say if your body rejects the donated kidney, you will die. This is another thing causing us to suffer. We have given up hope. We just wait. I don't know when it is my turn." (P3)

"If my eyes weren't like this, I would not stay here, if I didn't have to undergo dialysis, I would take shelter with someone, but now I can't. I'm here every other day. I am an ignorant woman. They used to love me. They used to say, "You have blue eyes. Oh, how beautiful your eyes are." Anyway, these eyes are worthless if you can't see." (P 5)

"We cannot rebel against God. I made a request for transplant. My daughter was going to donate her kidney. I said to my daughter, "you don't have to. I am rather old. You are young. You have children." She said "no problem, mom". Both of my children wanted to donate their kidneys. One of them has high blood pressure. The other one was sick. I cannot accept their donating. Test results showed that my daughter was also sick just like me. She cried. She was so sad. Do you get sad for the money you spend? We tried hard, but we did not have transplant. We came back empty-handed." (P 10)

Theme 4. Characteristics of the caregiver

In this theme, the participants stated that they expected their caregivers to have a smiling face and to pay attention to them and that they wanted to be understood.

"I expect intimacy. Warmth. All I want is a smiling face." (P 1)

"I want her to be sincere, faithful, compassionate and sensitive, to talk to me, and to take care of me." (P4)

Context 4. Mechanisms for coping with the disease

Theme 5. Support systems

In this theme, the participants stated that they received support from their families, spouses and nurses.

"Doctors and nurses here are very caring. They pick me up at home. I call them and they pick me up wherever I am. I can talk to them whenever I call. We are like a family. A strong bond was forged between us. They listen to me. They try to understand me. Sometimes I get very nervous. They put up with me. God bless them. I feel valuable here. The people here showed me more affection than did my family. (P 2)

"Nurses and doctors are very interested. They are very considerate. They ask how well we are. They laugh with us. They are interested. There is family warmth here. My family, my friend, my children support me. The health workers here support me as much as my family, even more than they do. They are very friendly." (P3)

"Care provided here is perfect. They are interested. They talk to us. Which one of us should they care about? I see how well they serve us. How well they work. What else can they do? Mankind is insatiable." (P 9)

Theme 6. Coping behaviors

In this theme, the participants stated that they surrendered to God and destiny to cope with the disease, that they were hopeful, that they rendered thanks to God, and that they became more faithful, prayed and received psychological support.

"There are seriously ill patients. I can use my hands. I can eat. I can see. I can void, though a little. This shows that my kidney is working at least a little. I'm wondering about this.

Some cannot void at all. I am lucky. If I didn't void, I would be exhausted; I would be devastated. It bothers me a lot. So my kidney is fine, even if it works a little bit. This makes me happy. (P 1)

"Be hopeful. Look, summer has come; flowers have bloomed. The sea is blue, green; life is beautiful. So are human beings. (In the following statements, she likens the periods of her life to the seasons.) You are born; you bloom like a flower. Your leaves fall in autumn. Our summer passed. We are old. If you water the flower, it will live better. Humans are the same. If they receive support from people around them, they can live well. They wouldn't worry about their diseases. One day we will be soil, we will fade. Who can change their destiny?" (P 1)

"Garden, backyard. I plant flowers there. I like my garden. I knit, I say prayers. I perform the ritual prayers of Islam. I talk to my husband, children and grandchildren. I work. I do not lose hope." (P 1)

"They always sent a psychologist to me while I was in the hospital. He was just as good as you are. He's been good for me. I even told him about you. I told him that you cared for me very well. I have a friend, we talk to each other from time to time and she is good for me. I've been prescribed psychiatric drugs but I haven't tried them. I want to live alone. I don't have the courage to live alone, but being a burden to my family and feeling degraded makes me sad. They said you are incompetent because I am sick, I must live alone now. I have no other choice. It will be difficult as I am, though." (P 2)

"I say prayers. I talk to my children. I watch the news. When I see those who are worse than I am, I render thanks to God. We see people how unhealthy they are. May God not make it worse!" (P3)

"Thank goodness, this is my fate. They say that God would give suffering, sickness to his beloved servants." (P 4)

"Now I turn to God and say prayers. I talk to my friends." (P 6)

"What did I do wrong so God gave this disease to me. I always think about my past. I get restless. I pray to God." (P 10)

"I got sick because of my daughter. My daughter had a brain hemorrhage. After she died, I was taken to the intensive care unit. It is from God. I am not complaining." (P12)

DISCUSSION

The prevalence of renal failure is increasing all over the world and accordingly mortality rates are increasing (4). Hemodialysis is the most commonly used treatment method for this disease. Since these patients spend most of their time in the hospital, determining their psychosocial care needs comes to the forefront.[17] Hemodialysis treatment may cause psychological distress in patients because the use of equipment restricts the patient's autonomy.[19]

In our study, we determined that hemodialysis patients showed 22 disease-induced symptoms. In a study, patients showed approximately 25 symptoms during the treatment, the most common of which were fatigue, itching, loss of appetite, loss of libido, insomnia, sadness and stress. These results are consistent with the results of our study. Inadequate social support can further increase the symptom burden.[27] Thus, it is necessary to evaluate the social support provided, especially as the hemodialysis treatment progresses, because inadequate social support increases the symptom burden.[27]

In a study similar to ours, it was reported that the patients experienced intense emotions such as hopelessness, fear and death. Determining the death-related care needs and reducing anxiety in this regard is important for the effective use of coping mechanisms.[8] In this process, kidney transplantation can be hope for them. In addition, spirituality and turning to religion are among the other important coping methods.[18] Belief in God is an important factor for patients to face death and to adapt to dialysis. Diet and fluid restrictions due to the disease affect the emotional state of patients and may cause them to experience such symptoms as pain and fatigue, which can

pave the way for psychological problems such as depression and anxiety.[28]

In our study, the patients experienced financial difficulties and thus were not able to meet many of their needs. Unemployment causes financial difficulties. In a study, approximately 54.1% of working patients expressed their financial concerns because they could not earn money due to their illness. In another study, approximately 80% of the patients reported that they had to take time off from their work on the day they underwent dialysis and thus they experienced economic distress. [17]

In the literature, it has been demonstrated that the severity of depressive symptoms is lower in men, those with higher income and those whose economic independence was high.[29] The treatment and care of kidney failure, which is a chronic disease, can cause serious increases in health expenditures and may negatively affect the income level of the sufferers and thus their psychological resilience.[20]

Having a high level of income is an important determinant of quality of life and is one of the protective factors affecting psychological resilience. In a study, it was determined that the psychological resilience of the patients decreased as the duration of the disease increased. As the disease progresses, emerging physical, mental, social and economic problems may pave the way for a decrease in psychological resilience.[20] As is indicated in the literature, the higher the income level is the better the mental health is.[19] The results of our study and other studies demonstrated that the economic condition had an effect on both the treatment process and the mental health of the patients.

Education level, economic level and duration of illness are among the factors affecting mental well-being.[20] The fact that individuals with high education level have high level of awareness, that they use effective problem-solving skills, and that they can access to information/health services more easily enable them to manage their illnesses better and to have better psychological resilience levels.[20] In the present study, since the education level of the participating patients was moderate, their psychological resilience was affected adversely.

Care-related needs are grouped under the following three headings: receiving care from health workers, needs for care and treatment, and characteristics of the caregiver. Patients' and their families' being supported by the state and social welfare institutions can contribute to the improvement of their quality of life.[17] Among the disease-coping mechanisms are support systems and coping behaviors. Hemodialysis patients undergo dialysis three days a week, which disrupts their daily activities and work life. This situation can lead to hopelessness and depression.[30] Psychosocial interventions performed in this process have been observed to have positive effects on depression, anxiety and quality of life of hemodialysis patients. Different nursing care and practices can enable self-management and improve the quality of life in chronic case.[31] In general, self-management is a commonly used term in health education and includes symptom management, treatment principles, outcomes, and lifestyle changes to maintain and improve quality of life.[32]

Psychological support not only is necessary for the strengthening of the disease-coping mechanisms, but also can have positive effects on the mental health of patients.[9] In the present study, hemodialysis patients stated that they received the greatest support from healthcare professionals, especially from nurses. Therefore, health workers and nurses assume significant responsibilities in increasing the psychological resilience of patients so that they can cope with the stressors of a chronic disease and in preventing mental disorders. The impact of health and nursing education is important and necessary to achieve the desired quality of life.[33]

Developing strategies in which the individual characteristics and needs of patients are taken into account and the aim is the improvement of their ability to cope with disease-related stressors may contribute to the improvement of patients' psychological resilience. In this sense, nurses' determining and meeting the spiritual needs of patients can contribute to the prevention of mental disorders and improvement of the quality of life of patients by increasing their psychological resilience.[20] Within this context, it should be kept in mind that nurses play a key role in improving the mental well-being of patients thanks to their caregiver, educating, guiding and supportive roles.[20]

Strengths and Limitations

The present study has some limitations. First, since the data is collected through observation and interviews, the reliability of the data is limited to the answers given by the participants. Second, the sample of the study included a small number of randomly selected hemodialysis patients. Therefore, the results of the present study are applicable only to the hemodialysis patients who constituted the sample.

The study showed that hemodialysis patients experience many psychosocial and physical problems, including hemodialysis-related symptoms, care needs, and coping behaviors. Because hemodialysis patients experience

psychosocial problems in this process, the importance of identifying these problems and developing appropriate interventions has been demonstrated. In our country's healthcare system, nurses are the healthcare professionals who will identify these psychosocial problems and provide appropriate interventions. To provide more effective nursing care in hemodialysis units, it is necessary to provide and evaluate holistic and individualized nursing care in patient care.

The results of the study are crucial to raise awareness of the importance of psychosocial care for nurses caring for hemodialysis patients. At the same time, it shows that patients need care in many aspects (physical, mental, and spiritual). In this sense, the study addresses many psychosocial dimensions of patients and contributes to nursing care. Patient-centered nursing can improve the quality of dialysis care and patient satisfaction. Nurses can develop and implement the most appropriate support program for hemodialysis patients. Therefore, there is a need for more qualitative studies that identify the psychosocial needs of hemodialysis patients.

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Registered Nurses' and Nursing Students' Attitudes Towards Scientific Research: A Cross-Sectional Study

Hemşirelerin ve Hemşirelik Öğrencilerinin Bilimsel Araştırmalara Yönelik Tutumlarının İncelenmesi: Kesitsel Bir Çalışma

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ABSTRACT

Objective: The current study evaluated and compared nurses' and nursing students' attitudes towards nursing research and the factors affecting it.

Methods: The study used a cross-sectional, descriptive survey design. Bedside nurses with at least one year of nursing experience and senior nursing students completed the Scale of Attitude towards Scientific Research, which is valid and reliable instrument.

Results: There were no significant differences in the mean of overall score of Attitudes of Scientific Research across groups. However, significant differences were found in the mean scores of unwillingness to help researchers (*P*=.002), positive attitudes towards research (*P*=.002), and positive attitudes towards researchers (*P*=.002) between nurses and nursing students. Additionally, the results showed significant differences in the mean of sub-scales based on nurses' education (*P*=.04), responsibility (*P*=.01), reading articles frequency (*P*=.02), and nursing students' gender (*P*=.03), and reading articles frequency (*P*=.04). Overall, nursing students had significantly higher scores in positive attitudes of research (M=24.5, SD=4.6) and positive attitudes of researcher (M=23.6, SD=4.3) compare to nurses (M=22.5, SD=5.3; M=21.6, SD=5.1 respectively).

Conclusion: Findings indicated that nursing students had significantly more positive attitudes to nursing research compare to registered nurses. Reading academic article is the only facilitator in each group that is associated with positive attitudes of scientific research. We recommend institutional support to encourage research activities and a revised nursing curriculum. Future studies should examine the relationships between attitudes towards research and the actual conducting of research.

Keywords: Nurses, nursing students, nursing research, attitudes, education

ÖZ

Amaç: Bu çalışma, hemşirelerin ve hemşirelik öğrencilerinin bilimsel araştırmalarına yönelik tutumlarını ve bu tutumlarını etkileyen faktörleri değerlendirmek ve karşılaştırmak amacıyla planlanmıştır.

Yöntemler: Çalışma tanımlayıcı tipte olup, kesitsel yöntem kullanılmıştır. Katılımcılar en az bir yıl hemşirelik deneyime sahip hemşireler ve son sınıf hemşirelik öğrencileri arasından seçilmiş olup, geçerlilik ve güvenilirliği kanıtlanmış Bilimsel Araştırmaya Yönelik Tutum Ölçeği kullanılmıştır.

Bulgular: Hemşireler ve hemşirelik öğrencilerin Bilimsel Araştırma Tutumları genel puan ortalamaları arasında anlamlı bir fark bulunmamıştır. Ancak, araştırmacılara yardım etme isteksizliği (*P*=,002), araştırmaya yönelik olumlu tutumlar (*P*=,002) ve araştırmacılara yönelik olumlu tutumlar (*P*=,002) puan ortalamalarında hemşireler ve hemşirelik öğrencileri arasında anlamlı farklılıklar bulunmuştur. Ayrıca, sonuçlar hemşirelerin eğitim (*P*=,04), sorumluluk (*P*=,01), makale okuma sıklığı (*P*=,02) ve hemşirelik öğrencilerinin cinsiyet (*P*=,03) ve makale okuma sıklığına (*P*=,04) göre alt ölçeklerin ortalamalarında anlamlı farklılıklar olduğunu göstermiştir. Genel olarak, hemşirelik öğrencilerinin araştırmaya yönelik olumlu tutumları (M=24,5, SD=4,6) ve araştırmacıya yönelik olumlu tutumları (M=23,6, SD=4,3) hemşirelere kıyasla anlamlı derecede daha yüksektir (sırasıyla M=22,5, SD=5,3; M=21,6, SD=5,1).

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Sonuç: Bulgular, hemşirelik öğrencilerinin hemşirelere kıyasla bilimsel araştırmalara karşı daha olumlu tutumlara sahip olduğunu göstermiştir. Akademik makale okumak, her iki grupta da bilimsel araştırmanın olumlu tutumlarıyla ilişkilendirilen tek kolaylaştırıcıdır. Çalışmanın sonuçlarına göre yetkili kurumlara uygulama alanında lisans hemşirelik müfredatının gözden geçirilmesini ve hastanelerdeki kurumsal araştırma faaliyetlerinin teşvik edilmesini öneriyoruz. Gelecekte planlanan çalışmaların ise, katılımcıların araştırmaya yönelik tutumları ile aktif araştırma yürütme durumları arasındaki ilişkileri incelemeleri faydalı olacaktır.

Anahtar Kelimeler: Hemşireler, hemşirelik öğrencileri, hemşirelik araştırması, tutumlar, eğitim

INTRODUCTION

In order to cope with current and emerging health problems, it is considerably important to keep up with the fast and constantly changing scientific and technological developments in the field of health. In recent years, it is widely recognized the world over that evidence-based practice (EBP) is the cornerstone and primary determinant of excellent patient care.[1] Most of the best evidence origins from research and one of the feature of EBP is the utilization of research knowledge. Healthcare professionals search for answers to numerous clinical questions every day, so they can easily access the evidence to answer these questions with a utilization of research knowledge.[2] Nursing research is crucial to the nursing profession and it appears as a key component to establishing and maintaining high standards of care. [3,4]

It becomes a very prominent responsibility for the nursing profession to conduct research and use the results in their clinical practices for ongoing developments that support the provision of the best nursing care. [4,5] Polit and Beck[6] defined nursing research as “the systematic inquiry designed to develop knowledge about the issues of importance to the nursing profession” (p. 3). Nursing care and practice standards are possible through EBP approach. [3,7] The establishment and achievement of this approach occur with quality clinical nursing research. Transferring research results to clinical practice is indispensable for quality and effective nursing care. [8,9] Nursing practice must be based on scientific information and evidence rather than traditions, eloquence, intuition, or habits, according to professional nursing research. Without scientific research, tradition, trial-and-error learning, authority, and personal experiences would all inform nursing practice. [1] Nurses utilize research to acquire new knowledge, confirm and improve current knowledge, which can both directly and indirectly influence nursing practice. Conducting research only by academics may lead a belief that the research results remain as theoretical knowledge, thus nurses who work in the hospital may not see those results as necessary and usable. When a research project is carried out by a cooperation of academic-nurse-nursing students, results can support more efficient and superior nursing care.[10,11] Therefore, the participation in research may contribute to the awareness of knowledge and competencies, in addition to being users of research results in the nursing field.[5,9]

A literature review indicated a lack of knowledge, motivation, and experience among nurses in conducting and utilizing research. [12,13] Moreover, nurses' attitudes and perceptions toward nursing research affected whether or not research is conducted and utilized. [9,14] According to studies, barriers to putting research findings into practice in the nursing field include a lack of motivation and interest, a lack of time, a lack of knowledge of the literature on the subject, a lack of authority to alter practice, a lack of peer and managerial support, and a poor comprehension of the research process. [5,12, 15]

Utilizing research is essential to educating the next generation of nurses, who will conduct new research, use recent research, and make decision in the clinical field. Consequently, the development of professional nursing discipline depends on the awareness of nurses and nursing students about scientific research. According to studies in the literature,[14,16,17,18] nurses and nursing students have some positive attitude toward nursing research, such as 46% of nurses from Ethiopia[17] and 60% of nursing students from Philipine[18] showed favorable attitudes towards research from their profession. Despite those results, there are limited studies determine and compare the research attitude and awareness of both nurses and nursing students.

AIM

Thus, the main purpose of this study is to investigate the attitudes of both nurses and nursing students towards research and the factors affecting it.

METHODS

Design

A cross-sectional descriptive survey was conducted. To understand nurses and nursing students attitudes towards scientific nursing research, the study examined participants attitudes towards unwillingness to help researchers, negative attitude towards research, positive attitude towards research and researchers.

Sample

Senior nursing students and bedside nurses were the study's target population. The data was collected from a city where has one training and education hospital and one university. While nearly 360 nurses are working in this hospital, almost 110 nursing students are studying Bachelor Degree in Nursing at University's Faculty of Health Science. Being a registered nurse who is currently employed in the area and having at least one year of nursing experience were requirements for inclusion. Nurses were excluded if they were not currently practicing or do not provide bedside care (e.g., administrators). Inclusion criteria for nursing students was being a fourth year nursing student in a university. Nursing students were excluded if they were not willing to participate or did not take the course "Research in Nursing." To estimate the required sample size the following parameters were used for power analysis: intended probability level of 0.05, statistical power of 0.8, and projected medium effect size (f^2) of 0.5.[19] The anticipated n = 140 final sample size includes 10% attrition.

Measurements and Data Collection

Participants were gathered during the time period from December 2017 to February 2018 from one of the largest public universities and training and research hospital in Turkey using a convenience sample approach. The data was collected online via a Google Forms document. Permissions was obtained from both university and hospital. A descriptive form and Scale of Attitude towards Scientific Research instrument were part of the survey that the participants completed.

Descriptive Form: We created a form based on the literature to collect personal and professional data from each participant in order to identify aspects that are connected to various attitudes toward scientific study. Gender, age, marital status, number of children, level of education, and number of years of nursing experience were all considered *Personal information.* The *Professional information* covered the professional certificate, the frequency of reading academic and professional nursing journals, membership in a professional organization, involvement in a research project, and past attendance at professional conferences and symposiums.

Scale of Attitude towards Scientific Research: The scale was developed by Korkmaz, Sahin and Yesil[20] to assess healthcare professionals' attitudes towards scientific research. It is a self-administered 30-items questionnaire that has four subscales: (1) unwillingness to help researchers, (2) negative attitude towards research, (3) positive attitude towards research, and (4) positive attitude towards researchers. The responses are rated on a five-point Likert-type scale, ranging from '1 not agree at all' to '5 completely agree,' with the range of the overall score between 30 and 150. The increase in the scores indicates an increase in negative attitude for the first (unwillingness to help researchers) and second (negative attitude towards research) factors, and an increase in positive attitude for the third (positive attitude towards research) and fourth (positive attitude towards researchers) factors. The first two factors and the last two factors are inversely proportional to each other. All of the items in the first and second factors are negative statements. The statements in the third and fourth factors are positive. Therefore, high scores obtained from the first two factors express negativity, while high scores in the third and fourth factors express positivity. Due to this inverse proportion, it is not meaningful to calculate a total score for the whole scale, and it is necessary to perform separate operations on the factors. This instrument has demonstrated overall a good internal consistency Cronbach's alpha 0.917. Also, all four sub-scale scores of study variable demonstrated good internal consistency (Cronbach's alphas unwillingness to help researchers 0.87; negative attitudes towards research 0.86; positive attitudes towards research 0.85; positive attitudes towards researchers 0.83).

Statistical Analysis

The Statistical Package for the Social Sciences (SPSS) (IBM, Version 27) was used to examine the data that had been gathered. Outliers and missing data were reviewed after data cleaning. Depending on the type of data, missing points were arbitrarily discovered and replaced with the mean or mode.[21] The sample characteristics were reported using descriptive statistics. Using the independent t-test and ANOVA were carried out between research variables. As suggested in the book[21] the data assumptions of normality, linearity, and homogeneity were evaluated and transformed. The results were assessed at the 5% level of significance and within the 95% confidence interval.

Ethical Considerations

The study protocol was reviewed and approved by the Kastamonu University Institutional Review Board (dated 11.02.2017 and numbered 14). The anonymous survey was administered between December 2017-February 2018. Respondents were initially checked for eligibility before to participation. Prior study participation, a formal informed consent was subsequently obtained. The form included information about the study's objective, methodology, possible risks and benefits, protection of privacy and confidentiality, and the choice to participate or drop out. It was voluntary to participate.

RESULTS

In total, 340 participants volunteered for this study including 247 registered bedside nurses and 93 nursing students completed a survey. Although we calculated 140 participants, response rate of the study was relatively high; 69% for nurses and 85% for nursing students. The data showed in the Table 1 that nursing students sample was mainly female (*n*= 69, 74%) and chose nursing profession willingly (*n*= 64, 69%).

Table 1. Descriptive Characteristics of Nursing Students (n = 93)

Individual Characteristics	n	%
Gender		
Female	69	74.2
Male	24	25.8
Willingness to choose nursing		
Yes	64	68.8
No	29	31.2
Reading academic article (monthly)		
Never	53	57.0
1-3	40	43.0
Journal subscription		
Yes	15	16.1
No	78	83.9
Attending congress/symposium		
Yes	50	53.8
No	43	46.2
Belief about positive impact of scientific research on nursing		
Yes	83	89.2
No	10	10.8

The findings of senior nursing students' participation in scientific activities showed that mainly they never read articles (*n*=53, 57%) and did not have journal subscription (*n*=78, 84%). More than half of them participated in scholar activities (*n*=50, 54%) and almost all had belief about positive impact of scientific research on nursing profession (*n*=83, 89%). Descriptive characteristics of nurses' results are showed at Table 1. The majority of the participants were between 31-40 years old. Professionally, the nurse participants were mostly bachelor's prepared (*n*= 98, 40%), clinical nurse (*n*= 128, 52%), and having less than 5 years of nursing experience (*n*= 84, 34%). As Figure 1 demonstrated, the results of registered nurses' participation in scientific activities showed that mainly they did not read articles (*n*=177, 72%), did not have certification (*n*=189, 77%), did not have journal subscription (*n*=237, 96%), and did not participate in scholar activities (*n*=168, 68%).

Table 2. Descriptive Characteristics of Nurses (n = 247)

Individual Characteristics	n	%
Age		
18-25	72	29.1
26-30	52	21.1
31-40	86	34.8
>40	37	15.0
Nursing education		
Medical High School	68	27.5
Associate Degree	76	30.8
Bachelor's Degree	98	39.7
Master in Nursing	5	2.0
Responsibility		
Director Nurse	10	4.0
Clinical Nurse	128	51.8
Intensive Care Nurse	19	7.7
Operating Room Nurse	16	6.5
Emergency Nurse	26	10.5
Other	48	19.5
Length of nursing experience (years)		
<5	84	34.0
6-10	58	23.5
11-15	30	12.1
16-20	32	13.0
>20	43	17.4
Reading academic article (monthly)		
Never	177	71.7
1-3	59	23.8
4+	11	4.5

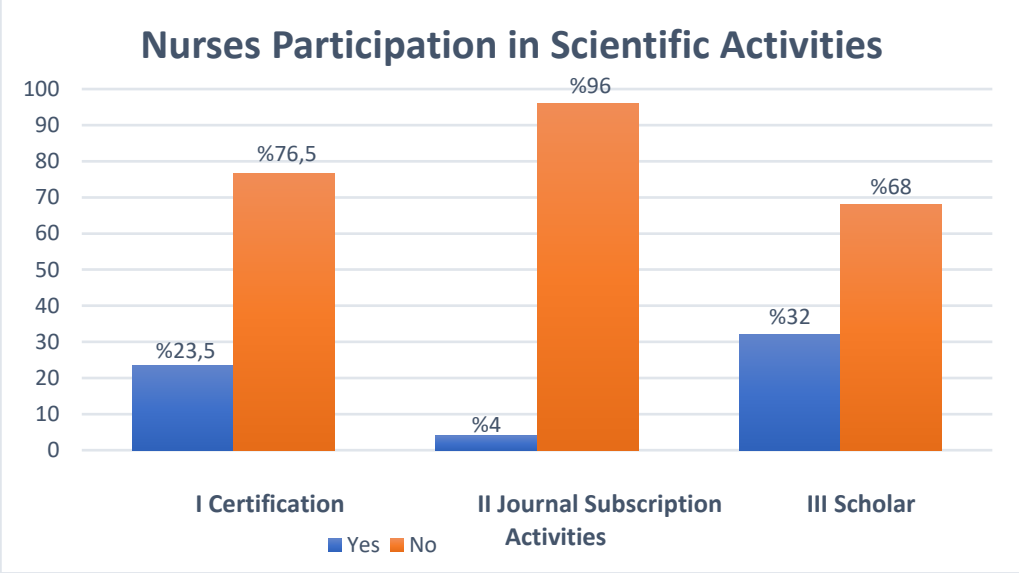
There were no significant differences in mean of Attitudes of Scientific Research (ASR) scores within registered nurses' individual characteristics. Similarly, there were no significant differences in mean Attitudes of Scientific Research (ASR) scores within nursing students' individual characteristics. Comparison of registered nurses and senior nursing students' attitudes of scientific research illustrated in Table 3. Nursing students had significantly higher mean scores based on all sub-scales (*P*=.002) except 'Negative attitudes towards research.' Significant differences in mean sub-scale scores and sample characteristics displayed in Table 4. There were no significant differences in mean 'Unwillingness to help researchers' sub-scale scores within registered nurses except for nursing education with a small eta squared (*M*=19.9, *P*=.04, η^2=.03) and within nursing students except for gender with a small effect size (*M*=22.1,

P=.03, *Cohen's d*=.44). Similarly, there were no significant differences in mean 'Negative attitudes towards research' sub-scale scores within registered nurses except for responsibility with a medium eta squared (*M*=22.6, *P*=.01, η^2=.06) and within nursing students except for reading article with a very small effect size (*M*=22.1, *P*=.04, *Cohen's d*=.04). Additionally, there were significant differences in mean 'Positive attitudes towards research' sub-scale scores only within registered nurses for responsibility with a medium eta squared (*M*=26, *P*=.03, η^2=.05) and reading monthly academic articles with a small eta squared (*M*=24.4, *P*=.02, η^2=.03). Finally, the only significant difference in mean 'Positive attitudes towards researchers' sub-scale scores was within registered nurses' responsibility with a medium eta squared (*M*=24, *P*=.02, η^2=.0

Table 3. Comparison of Nurses and Nursing Students Based on Subscales of ASR

Subscales of Attitudes Towards Scientific Research	Nurses (n = 247)	Nursing students (n = 93)	*t*-test	*P*
	Mean (SD)	Mean (SD)		
Unwillingness to help researchers (8-items)	19.2 (5.7)	21.4 (5.9)	3.15	.002*
Negative attitudes towards research (9-items)	20.5 (5.7)	21.2 (5.4)	.92	.35
Positive attitudes towards research (7-items)	22.5 (5.3)	24.5 (4.6)	3.19	.002*
Positive attitudes towards researchers (6-items)	21.6 (5.1)	23.6 (4.3)	3.18	.002*

**P* < .05; *t*-test for equality means, SD; Standard deviation



I - Do you have certification about nursing?
II - Do you constantly follow academic publications about nursing?
III - Do you participate in scholar activities like scientific meetings, congresses, symposia, etc.?

Figure 1. Participation of Nurses in Scientific Activities

Table 4. Comparison of Scientific Research Attitudes (ASR) Subscale Scores of Nurses (n=247) and Nursing Students (n=93) According to Descriptive Characteristic

Descriptive Characteristics	Unwillingness to help researchers (8-items)		Negative attitudes towards research (9-items)		Positive attitudes towards research (7-items)		Positive attitudes towards researchers (6-items)	
	M (SD)	*F/t* *P* †η²/*Cohen's d* *Tukey*	M (SD)	*F/t* *P* †η²/*Cohen's d* *Tukey*	M (SD)	*F/t* *P* †η²/*Cohen's d* *Tukey*	M (SD)	*F/t* *P* †η²/*Cohen's d* *Tukey*
Registered Nurses								
Nursing Education								
Medical High School[1]	17.9 (5.5)	2.70 .04* .03 2>1,3>4	19.5 (4.8)	1.25 .29	22.6 (6.2)	.57 .63	21.5 (5.5)	.64 .58
Associate Degree[2]	19.6 (5.4)		21.2 (6.3)		22.0 (5.0)		21.1 (5.6)	
Bachelor's Degree[3]	19.9 (5.8)		20.8 (5.8)		23.0 (4.7)		22.2 (4.5)	
Master in Nursing[4]	15.2 (6.9)		19.2 (4.1)		21.4 (6.3)		20.6 (6.7)	
Responsibility								
Director Nurse[1]	18.9 (8.1)	1.09 .36	18.3 (2.3)	2.98 .01* .06 4>5,4>6,2>1	26.0 (3.8)	2.50 .03* .05 5>4,6>4,1>2,1>3	24.0 (2.3)	2.56 .02* .05 5>4,1>2,1>3
Clinical Nurse[2]	19.6 (5.9)		21.5 (6.1)		21.7 (4.5)		20.7 (4.9)	
Intensive Care Nurse[3]	17.8 (5.1)		19.5 (5.2)		21.8 (7.7)		21.7 (5.7)	
Operating Room Nurse[4]	21.3 (5.2)		22.6 (3.4)		21.9 (6.7)		20.9 (6.5)	
Emergency Nurse[5]	18.2 (4.8)		18.7 (5.4)		23.6 (5.0)		23.6 (4.5)	
Other[6]	18.4 (5.3)		18.9 (5.2)		23.9 (5.5)		22.8 (5.5)	
Reading Articles (monthly)								
Never[1]	19.0 (5.6)	.37 .68	20.5 (5.7)	.37 .68	21.9 (5.2)	3.91 .02* .03 3>2,3>1	21.2 (5.4)	2.03 .13
1-3[2]	19.3 (5.0)		20.2 (5.3)		23.9 (4.9)		22.7 (4.3)	
4+[3]	20.5 (9.1)		21.8 (6.9)		24.4 (7.0)		22.7 (5.1)	
Nursing Students								
Gender								
Female	22.1 (6.1)	2.11 .03* .44	21.3 (5.8)	.51 .60	24.6 (4.3)	.12 .90	23.7 (3.8)	.80 .42
Male	19.5 (4.7)		20.6 (4.4)		24.4 (5.6)		22.9 (5.4)	
Reading Article (monthly)								
Never	21.8 (5.7)	.66 .50	22.1 (6.0)	2.01 .04* .42	24.2 (4.3)	.12 .90	23.1 (3.9)	-1.18 .24
1-3	20.9 (6.1)		19.8 (4.3)		25.0 (4.9)		24.2 (4.7)	

* $P < .05$; † if significant; *t*-test and ANOVA (Post-Hoc: Tukey test)

DISCUSSION

Students play a vital role in ensuring clinical research studies in the future, thus identifying the attitude of registered nurses and nursing students toward scientific research is essential. Additionally, registered nurses advance the nursing profession and offer evidence-based care, both of which support positive health outcomes. There are few studies that looked at the average views of nurses and nursing students toward scientific research. Our findings agreed with earlier research from the literature,[14,17,22] and revealed that overall nurses and nursing students are aware about the importance of research for the nursing profession and have positive attitudes towards scientific research in nursing. That positive attitude bodes well for the uptake of future research about nursing science.

We found that although majority of the respondents had positive attitudes towards research and more than half of them participated scholar activities; over half of them do not read academic articles and many do not have journal subscription, those rates are similar with previous studies. [16,23] Our results indicated the importance of academic reading as the nursing students who did not read article had negative attitudes towards research and nurses who read academic articles had positive attitudes towards research. Those findings show that to apply evidence-based strategies in clinical practice, nurses and nursing students need information literacy skills. Additionally, one of the studies showing that there is a difference between genders in nursing students' awareness and attitudes towards research and developments,[23] which is supported with our results. Our findings aligned with Özdil and colleagues[23] that a significant difference in unwillingness to help researcher based on nursing education. Nurses who had a master's degree were less likely to help researchers compare to others. Their results may be explained by research fatigue during master education. On the other hand, similar with Kovacevic and colleagues[15] nurses who had a bachelor's degree had more positive attitudes towards research.

Our study supported the finding of Cleary-Holdforth and colleagues[7]. Similar with their study we identified significant differences in positive attitudes towards research between nursing students and nurses. It is important to emphasize research and provide opportunities for nursing students for research participation. If students, who are future nurses of society, are not aware about nursing research in college and not experiencing evidence-based practice in the clinic, they are highly unlikely to provide evidence-based care or obtain the knowledge and skills to put it into practice. The low rates of literacy skills among nurses and nursing students perpetuates the cycle of low evidence-based health care. We can break the cycle through providing and promoting positive attitudes towards research.

Limitations

The current study used a cross-sectional design that restricts the ability to infer cause and effect relationships among the study variables. A small convenience sample of nursing students from one hospital and one nursing department at a federal university was employed in this study, so any generalizations to the entire population from that results must be produced with care. By using a reasonably large sample size (n=340), achieving a high response rate (min 69%), and dealing with a limited percentage of missing data, the authors increased the study's reliability.

The current research findings indicated that Turkish nurses and nursing students who participated in this study had somewhat more favorable attitudes toward nursing research, which is consistent with earlier studies. Nevertheless, no significant difference was found between any variables and total score of attitudes towards scientific research scale. Several background factors of nurses and nursing students were significantly associated with some of the subscales scores of attitudes towards scientific research scale.

Study results revealed reading academic article was significantly associated with both nurses and nursing students' positive attitudes towards research. We recommend institutional support for nurses to encourage research activities and revised nursing curriculum to make nursing students more research. Hospitals need to advance research centers specific for nursing. Facilities should provide support for nurses to engage in continuing education programs and encourage for research participation. Also, nursing curriculum should be modified and academic reading should be encouraged by faculty members. In order to cultivate an environment that supports research activities, nurse administrators should emphasis the barriers of staff nurses and work toward eliminating them. Strategies to increase participation in research and improve the way of research attitudes should be developed and evaluated.

We recommend that future research should compare research attitudes of nursing students, nursing faculty, and nurses in the clinic and look at the relationships between research attitudes, research participation and evidence-based practices beliefs and implementations.

Those studies should examine larger aspects that affect the attitudes of scientific research. Furthermore, future research should look at the obstacles and facilitators of nurses' and nursing students' support for research and research utilization. Also, the relationship between attitudes towards research and actual conducting of research should be examined. These findings should be incorporated into more qualitative study to better understand the transition from nursing student to clinic nurse.

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Bilgilendirilmiş Onam: Bu çalışmaya katılan hemşirelerden ve hemşirelik öğrencilerinden yazılı bilgilendirilmiş onam alınmıştır.
Hakem Değerlendirmesi: Bağımsız dış uzman değerlendirmesi yapılmıştır.
Yazar Katkıları: Konsept ve Tasarım - GUK; Veri Toplama - GUK; Analiz ve/veya Yorumlama - NSK; Literatür Taraması - GUK, NSK; Makale Yazımı – GUK, NSK; Eleştirel İnceleme - GUK, NSK
Çıkar Çatışması: Yazarlar, bu çalışmanın araştırması, yazarlığı ve yayınlanması ile ilgili olarak bilinen herhangi bir çıkar çatışması beyan etmemişlerdir.
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Ethics Committee Approval: The study protocol was reviewed and approved by the Kastamonu University Institutional Review Board (dated 11.02.2017 and numbered 14).
Informed Consent: Written informed consent was obtained from the nurses and nursing students who participated in this study.
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