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Priorities of Turkish Medical Students Regarding Working with Elderly Individuals Experiencing Dementia

Türk Tıp Öğrencilerinin Demans Yaşayan Yaşlılarla Çalışma Konusundaki Öncelikleri

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ABSTRACT

As population ages, there will be a significant shift in the need for healthcare professionals who are trained in dementia care. Medical students are one of the primary backbones of healthcare system in developing countries, especially in Türkiye. Therefore, understanding the preferences of Turkish medical students regarding working with elderly patients, who are coping with dementia, can tackle this issue by application of appropriate educational strategies and healthcare policies. This study applied a review approach to synthesize existing literature on the priorities of medical students towards dementia care. Articles were sourced from electronic databases such as PubMed, Wiley Online Library. Inclusion criteria were applied to select articles for analysis, with a particular emphasis on extracting data related to medical students' attitudes, perceptions, preferences, and factors affecting them regarding dementia care. Nine hundred eighty-six studies (27 full texts) across electronic database were screened and 8 were selected on February 2024. The amount of exposure to geriatric care, career, and work characteristics affected students' choices the most. Numerous studies evaluated the effect of interventions for dementia care promotion. Female students were more willing to work with elderly patients coping with dementia compared to their male counterparts. Turkish medical students feel both interested and apprehension regarding working with elderly individuals experiencing dementia. In order to address the probable issues which may stem from the healthcare needs of the aging population in Türkiye, it is vital that experts integrate and insert proper geriatric training, especially dementia care into medical curricula.

Keywords: Turkish medical students, dementia, career preferences, elder care.

ÖZ

Nüfus yaşlandıkça, demans bakımı konusunda eğitim almış sağlık profesyonellerine olan ihtiyaçta önemli bir artış olacaktır. Tıp öğrencileri, özellikle Türkiye gibi gelişmekte olan ülkelerde sağlık sisteminin temel dayanaklarından biridir. Bu nedenle, Türk tıp öğrencilerinin demansla başa çıkan yaşlı hastalarla çalışma konusundaki tercihlerini anlamak, uygun eğitim stratejileri ve sağlık politikalarının uygulanmasıyla bu sorunu çözebilir. Bu çalışma, tıp öğrencilerinin demans bakımına yönelik önceliklerini sentezlemek için mevcut literatürü gözden geçirme yaklaşımını uygulamıştır. Makaleler, PubMed, Wiley Online Library gibi elektronik veritabanlarından temin edilmiştir. Analiz için makale seçerken, tıp öğrencilerinin demans bakımına yönelik tutumları, algıları, tercihleri ve bunları etkileyen faktörlerle ilgili verilerin çıkarılmasına özel önem verilmiştir. Elektronik veritabanında toplamda 986 çalışma (27 tam metin) taranmış ve Şubat 2024'te 8 makale seçilmiştir. Geriatrik bakıma maruz kalma miktarı, kariyer ve çalışma özellikleri öğrencilerin tercihlerini en çok etkileyen faktörler olmuştur. Birçok çalışma, demans bakımını teşvik etmek için yapılan müdahalelerin etkisini değerlendirmiştir. Kadın öğrenciler, erkek meslektaşlarına kıyasla demansla başa çıkan yaşlı hastalarla çalışmaya daha istekli oldukları görüldü. Türk tıp öğrencileri, demans yaşayan yaşlı bireylerle çalışmak konusunda hem ilgi hem de endişe duymaktadır. Türkiye'de yaşlanan nüfusun sağlık ihtiyaçlarından kaynaklanabilecek olası sorunları ele almak için, uzmanların tıbbi müfredata uygun geriatri eğitimi, özellikle demans bakımını entegre etmeleri ve yerleştirmeleri hayati önem taşımaktadır.

Anahtar Kelimeler: Türk tıp öğrencileri, demans, kariyer tercihleri, yaşlı bakımı.

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Introduction

As we are moving forward, the demographics of the world are changing due to the growth of elderly population.[1] Consequently, when population ages, there will be a significant shift in the demand for healthcare professionals who are specialized in geriatric care. On the other hand, dementia, which is characterized as a syndrome through which cognitive function declines and further disrupts daily activities, is prevalent among elderly people and nearly doubles among people every five years.[2,3] In the context of dementia progressing among aged population, geriatric caregiving becomes more daunting than before, as a result of unique characteristics of symptoms appearing in patients. Understanding the importance of geriatric care and prevalence of dementia in Turkey is vital due to significant increase of elderly population estimation at 22.4 million in 2050.[4] Additionally, as Gurvit et al.[5] identified, the dementia prevalence rate in Istanbul is 20%, a statistic that mirrors those identified in Western societies.

Medical students are one of the primary backbones of each healthcare system especially in Türkiye. Therefore, understanding the priorities of Turkish medical students regarding working with elderly patients, who are coping with dementia, can tackle caregiving issues by application of appropriate educational strategies and healthcare policies. Previous literature mainly performed to assess the preferences of not only medical students but also other healthcare students such as nursing in other countries except than Türkiye.[6] However, this study is focused mainly on medical students' approaches and perceptions and interventions for geriatric care promotion.

Method

Research Model/Design

In February 2024 initial search was performed in PubMed & Wiley online library databases. The search employed a specific strategy in order to select relevant studies from the existing literature (Table 1, Table 2).[6-13] This study reviewed and focused on previous literature with both cross-section and longitudinal study designs respectively.[6-13]

Table 1

Context search	Terms
Anywhere	"Students, Medical" OR "medical students"
Anywhere	"Preferences" OR "priorities" OR "occupational choice*" OR "Occupational preferences" OR "Career choice" OR "career priorities" OR "Career intent" OR "Job preference" OR "Job choices"
Anywhere	"dementia" OR "Cognitive impairment" OR "Memory loss" OR "Lewy body dementia" OR "age-related cognitive decline" OR "vascular dementia" OR "senile dementia"
Anywhere	"dementia" OR "Cognitive impairment" OR "Memory loss" OR "Lewy body dementia" OR "age-related cognitive decline" OR "vascular dementia" OR "senile dementia"

Wiley online library

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Table 2

Search	Query	Search results
#1	"Students, Medical"[MAJR]	**34,581**
#2	"Medical students" [tiab]	**50,947**
#3	("Students") OR ("Healthcare students")	**362,792**
#4	((#**1**) OR (#**2**)) OR (#**3**)	**362,807**
#5	("Preferences" [tiab]) OR ("priorities" [tiab])	**130,928**
#6	(((((("occupational choice*") OR ("Occupational preferences")) OR ("Career choice")) OR ("career priorities")) OR ("Career intent"))) OR ("Job preference")) OR ("Job choices")	**26,962**
#7	(#**5**) OR (#**6**)	**157,007**
#8	(((("Elder") OR ("senior people")) OR ("Elder care"))) OR ("Geriatric")) OR ("Gerontology")	**208,766**
#9	"Geriatric patients"	**8,374**
#10	"Elderly"	**320,912**
#11	("Older adult") OR ("Older people")	**59,878**
#12	(((#**8**) OR (#**9**)) OR (#**10**)) OR (#**11**)	**519,102**
#13	((((("dementia") OR ("Cognitive impairment")) OR ("Memory loss")) OR ("Lewy body dementia")) OR ("age-related cognitive decline")) OR ("vascular dementia")) OR ("senile dementia")	**241,089**
#14	(((#**4**) AND (#**7**)) AND (#**12**)) AND (#**13**)	**15**

PubMed

Population and Sample

Out of 8 studies, 2 of them were review articles[6,9], 1 none-randomized control trial[10], and 5 were cross section with either interviews or questionnaires.[7,8,11-13] Details from each study are demonstrated as following (Table 3).

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Table 3

Author	Published date	Study design	Intervention
M. Hebditch et al.	**2022**	Cross section Interview	TFD program
S. Banerjee et al.	**2021**	Cross section Comparative	TFD program
M. Hebditch et al.	**2020**	Systematic review	Educational program
S. Banerjee et al.	**2017**	Scoping review	TFD, DUO, PAIRS, Buddy, and TALES programs
M. H. J. van de Pol et al.	**2014**	None Randomized clinical trial	"GeriatriX" video game
A. Nanda et al.	**2013**	Cross section Qualitative theme	Reflective journal
A. L. Jefferson et al.	**2012**	Cross section	PAIRS program
M. A. Eskildsen et al.	**2009**	Cross section Survey	Aging & dying course

Data Collection Tools

Studies that focused on "preferences, priorities, and attitudes" of both medical students and early career doctors from different countries towards elder patients with dementia were selected. Studies were excluded if they investigated medical residents. Conference abstracts were not selected for screening. Additionally, studies related to healthcare students in general were analyzed; however, if any study was specifically related to any other majors but medicine was excluded as well. There were no limitations regarding years searched, from 1968 to 2024. Excel and Endnote platform was used in order to classify studies and identify variables.

Data Collection and Analysis

Two authors independently selected the studies, based on the inclusion criteria, after the search strategy was performed. The Endnote platform was utilized after the citations were recognized. Subsequently, duplications were eliminated. Meta analysis could not be performed due to lack of

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enough studies and variation of the data. However, thematic analysis was performed based on qualitative themes [6].

Research Ethics

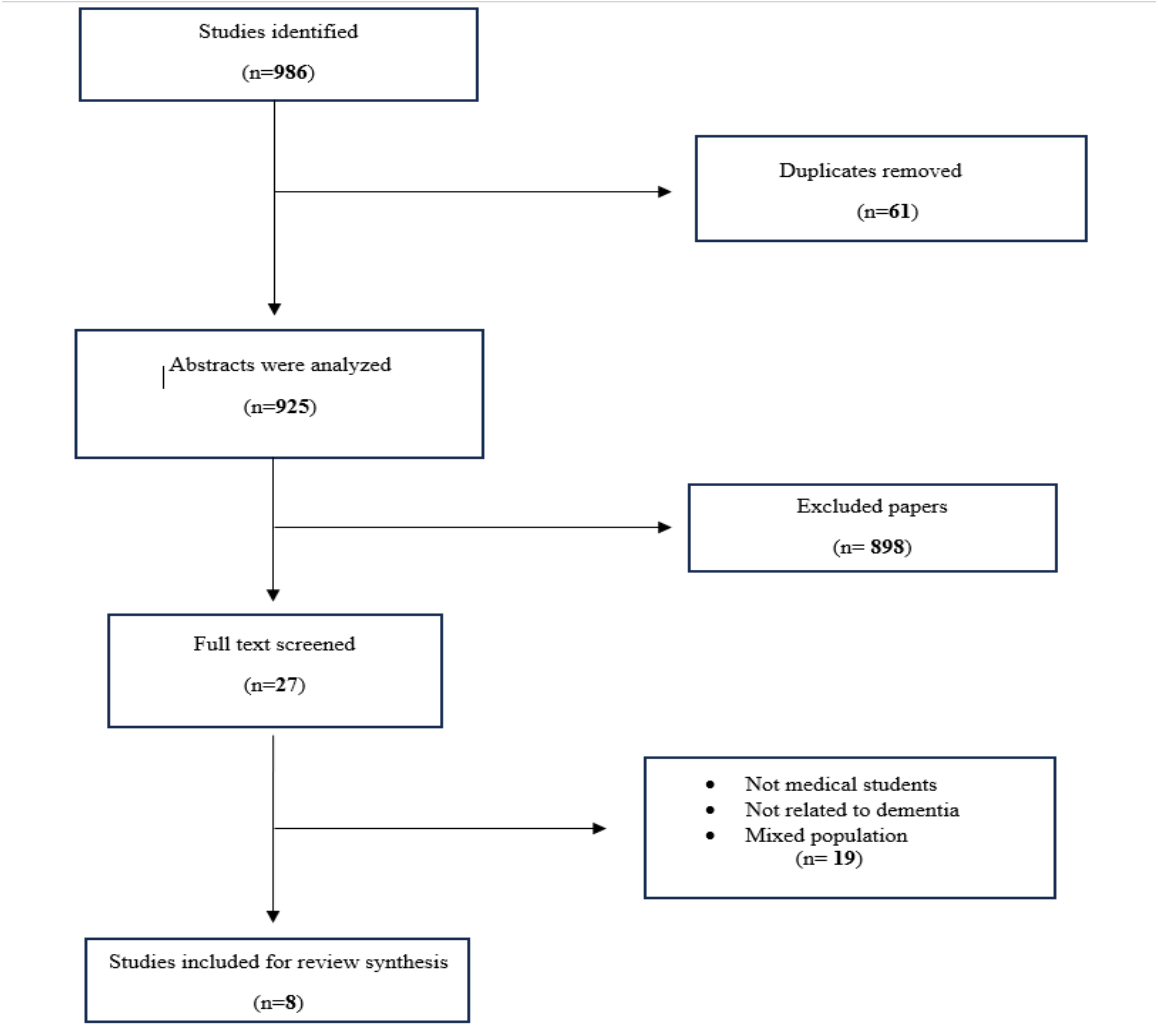
IRB approval was not required for this study since the data was collected from existing literature in which they contained ethics committee approval. Additionally, it is worth mentioning that the design of this study is a review article.

Result

Screening results

Out of 986 retrieved papers, 60 duplicates were removed. The remaining studies were analyzed through abstracts and titles; furthermore, 898 were excluded. After full text screening, 19 studies did not meet the eligibility criteria since they contained either mixed population data or not related to medical students. Finally, 8 studies [6-13] were selected to be analyzed with a total 720 students and two review papers (Figure 1).

Figure 1



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Classification

Different variables were selected, which can be categorized into different groups which is very similar to previous review literature. [6]

- Students' related factors
- Amount of exposure to elderly people
- Career characteristics
- Patients' characteristics
- Work characteristics

Student related factors

The demographics of students had significant effects on their preferences. For example, female students were more willing to work with elderly patients coping with dementia compared to their male counterparts.[6] On the other hand, age of the students was not considered as a significant factor. The year in which students are training had a considerable negative effect on priorities. Other factors such as culture, knowledge, and family characteristics had little effect, but were not considered remarkable.[6]

Amount of exposure

The amount of previous experiences that students had with patients was another important factor. As much as medical students were exposed to geriatric settings, they had a higher positive attitude towards elderly care[7]; however, this factor was not considered consistent with the findings of another study.[6] Additionally, clinical placements and rotations had moderate positive association.[6] The primary finding, which was common between all of the studies was the intervention factor that had further influence on their specialization.[6,7] These interventions were considered as educational programs which exposed students to elderly individuals and affected students' psychology.[7] For instance, students reported these programs and experiences with elder people will reward them mentally by showing that students are "making a difference".[7] However, this was only perceived by those students who had higher preference for working with elderly people before being exposed to programs; on the other hand, those with lower preference acknowledged that although working with elderly patients can be rewarding, it is daunting to achieve it in clinical settings.[7] Time for dementia program (TFD), a 2-year educational program, assessed students' expectations and defined what the role of healthcare experts is when they face vulnerable adults and elderly patients.[6,8] TFD elevated students' preferences by eliminating their fears of working with elder people with dementia.[7] Nevertheless, those students who were not influenced by TFD, believed that real clinical settings are more vital for shaping their preferences.[7] Additionally, PAIRS and BUDDY programs are the pioneering initiatives that exposed exclusively medical students to experiences with elderly individuals with dementia. PAIRS not only educated students about Alzheimer's disease (AD) and related cognition defects, but it also fostered students' communicational skills and introduced geriatric career opportunities to student.[12] One study compared different programs: PAIRS, TALES, DUO, BUDDY, and TFD, which concluded that TFD is more effective than others in a way that it can give a longitudinal experience to students because patients with dementia are affected in long term condition and programs with short term period are not sufficient to assess students and affect their preferences.[9] Reflective journaling was another intervention, in which students were asked to reflect on their experience with elder individuals with dementia after being exposed to geriatric care in hospital settings and classrooms, that considered to involve students in order to learn and more importantly, apply geriatric care principles.[11] Several themes were identified according to the outcomes of journaling.[11] Students were able to understand how vital the psychosocial factors are for geriatric care, for example patients' family dynamics and living situations provided useful information for medical students to manage medications and to understand cognitive function levels of patients. A classic and effective intervention was the aging and dying course which paved the way for medical student to shape their approach towards older people.[13] Finally, one innovative educational approach towards

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medical students was "GeriatriX" video game, which allowed them to overcome the challenges of geriatric more easily by putting students in similar case simulation.[10]

Career characteristic

Financial aspects and prestige appeared to have a negative association with preferences.[6] Another finding is related to the system and work environment. Lack of funding and poor organizational system were considered drawbacks; nevertheless, worthy care experience existed if there was a good team environment.[7] Length of training was another negative factor of geriatric care for students.[6]

Patient characteristic

The age of elder people was a demanding factor for those students who hoped to work with elder individuals.[6] Communication difficulty affected medical students in a way that they would feel uncertainty in practice [7], but for some others this could be an opportunity to interact with the patient more often.[6] Another factor that students considered was the stage and illness type of patients. If the illnesses are permanent and chronic, there would be limited capacity to contribute to elderly care.[6] Lastly, patients' families could cause extra challenges for students due to difficult conversation[7], but family dynamics were not significant for another literature.[6]

Work characteristic

The nature of the work was considered as important factor, and students identified it differently. Some students evaluated dementia care as "boring" since it does not contain intellectual stimulation.[6] Furthermore, dementia care was considered "complex" since not only it had limitations for performing therapeutic actions, but also it was uncomfortable.[6,7] While dementia care caused positive interaction between students and elder people, it caused emotional burden such as fear of elder people's death for some other students.[6,7] Another negative factor for medical students was the lack of procedures in elderly care; they preferred to work in busier and acute setting rather than a "psychosocial" environment.[7] Eventually, those who were more interested in dementia care considered a care with tons of diversity; oppositely, less enthusiastic medical students viewed it as a lack of variety.[7]

Future research has to be done to gather information about Turkish medical students directly through either interviews or survey implementation. Moreover, more studies can be performed with the focus on interventions for dementia care advancements, whether to give better evidence that which educational program could have higher impact on medical students' preferences.

Conclusion

Medical students felt both interest and apprehension regarding working with elderly individuals experiencing dementia. In order to address the probable issues that may stem from the healthcare needs of the aging population in Türkiye, it is vital that experts integrate and insert proper geriatric training and educational programs especially dementia care into medical curricula. Furthermore, targeted interventions aiming to increase students' knowledge and motivation surrounding elderly dementia care can be promising for encouraging more medical students to consider careers in this field.

Discussion

This comprehensive review highlighted several factors affecting medical student's preferences towards dementia care and multiple categories were outlined, which were similar to the findings and classification of other literature.[6] However, the main findings of this review were different especially about educational interventions and how they shape students' approach to dementia care. Other key

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findings include students' demographics, whether they had exposure to elder people, career characteristics, and patients' illnesses.

Intervention

Different educational interventions had crucial effects on changing students' ideas about dementia care. TFD program was considered the most beneficial one since it is relatively a longer program than others, and is taken more seriously because it does not place in students' elective curriculum.[9] Additionally, students' optimism and comfort with patients enhanced that could be as a result of more time they were spending together. PAIRS program was more specific to AD, which can be considered as the main reason for developing dementia.[14] Two main purposes of this program were to increase students' awareness towards AD and elder needs.[12] "Reflective journaling" enable students to have better understanding of not just dementia care but also geriatric principle generally. This self-reflection method gave better insights to students to comprehend the importance of physicians' roles in dementia care after each session they spent with elderly people.[11] Further intervention was "Aging and dying" course, which contained basic sciences information about mechanisms of growing older and death; however, the effect of this course on students was evaluated positively that might be due to the fact that students could figure out the reasons behind aging and have emotional connection with it.[13] Eventually, last intervention that resulted in a positive way was "GeritatiX" video game. Dementia and elder care simulation very similar to real settings was given to the students, and not only they were able to manage difficult barriers related to this field, but also it seemed enjoyable to them; therefore, this innovative intervention can be considered an effective motivator for those students who are not interested in this field.

Other factors

The main key findings which are attributable to students' preferences were the characteristics of patients, dementia care exposure, and educational programs related to dementia care for students and career. The degree of patients' illness was considerably negative factor since it would bring about extra problems such as communicational issues, difficulty of history taking, lacking full knowledge about the nature of disease. Another worthy comment that students noted was that the nature of dementia care was "boring".[6] Moreover, they believed that this type of work does not challenge them intellectually compared to other medical jobs. Also, this type of job would put them in several ethical dilemmas which further seemed unattractive. Prestige and financial aspects played an important role when students wanted to take dementia care into consideration. Our results suggested that these two factors were the negative aspects of this career. It is worth mentioning that the female sex was more willing to work with elderly patients.[15]

Islamic and Turkish view

This review was performed on studies and literature in many countries including Türkiye. The results of each study were consistent with one another due to the similar interests and goals of medical students. Based on Islamic principles and Turkish culture, medical students in Türkiye are expected to prioritize dementia care more often since they would recognize each moment of elderly people valuable. In the light of these facts, Turkish medical students plausibly would resolve problems among geriatric care on a case-by-case basis which further stems from Islamic principles.

Implication

This study provides both theoretical and practical implications for healthcare policymakers and medical education. From theoretical view, this study offers a deep understanding of how medical students currently view geriatric care especially with elderly people experiencing dementia, attitudes and priorities that can be shaped by utilizing the mentioned educational programs, highlighting the crucial role of exposure. On the practical side, this research indicates that incorporating educational

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programs such as TFD and PAIRS into medical training during both phases during clerkships and basic sciences can boost students interest and skills in dementia care in order to address the issues and shortage of geriatric specialists especially in Türkiye. By applying these findings, policy makers and medical schools can prepare future healthcare professionals effectively to meet the issues which will pop up due to the increasing needs of an aging population with a well-equipped workforce.

Limitation

This review contained several limitations. Not enough studies existed to give higher evidence for the factors mentioned, and only one study was nonrandomized clinical trial for intervention assessment.[10] Another limitation is that no direct data related to Turkish students was available. Some studies were excluded due to the mixed population; however, from few mixed studies we could gather data related specifically to medical students.

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