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The Effect of Hand Hygiene Training Provided with Dance Assistance to Mild Mentally Disabled Middle School Students on their Hand-washing Skills

Hafif Düzeyde Zihinsel Engelli Ortaokul Öğrencilerine Dans Destekli Verilen El Hijyeni Eğitiminin Öğrencilerin El Yıkama Becerilerine Etkisi

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ABSTRACT

Introduction: Supporting students with intellectual disabilities through education is crucial for improving their hand-washing skills.

Aim: This study was conducted to determine the effect of dance-assisted hand hygiene education given to mildly mentally disabled secondary school students on their hand-washing skills.

Method: This study was conducted in "a one-group pretest-posttest quasi-experimental design" between January and May 2024. The study population consisted of 36 students studying at Special Education Secondary School, and the sample consisted of 29 students who met the research criteria and whose parents gave consent. The data of this study were collected with the Student Introduction Form and Correct Handwashing Evaluation Form. In this study, dance-supported hand hygiene training was given to mildly mentally disabled secondary school students for an average of 20 minutes in one session. Data was analyzed using descriptive statistics and McNemar test.

Results: In this study, a statistically significant difference was determined between the pre-test and post-test pulling up garment sleeves, wetting hands with some water, switching off the tap, lathering hands thoroughly with some soap, rubbing between fingers, rubbing by taking the thumbs into the hand and fingertips in the hand and rubbing practices ($p < 0.05$).

Conclusion: It was determined that dance-supported hand hygiene training given to mildly mentally disabled secondary school students increased the students' application skills in 50% of the hand-washing steps. In line with this result, it is recommended that hygiene education given to mildly mentally disabled secondary school students should be supported by dance.

Keywords: Dancing; disabilities; hand hygiene.

ÖZ

Giriş: Zihinsel engelli öğrencilerin el yıkama becerilerini artırmak için eğitimle desteklenmeleri önemlidir.

Amaç: Bu araştırma hafif düzeyde zihinsel engelli ortaokul öğrencilerine dans destekli verilen el hijyeni eğitiminin öğrencilerin el yıkama becerilerine etkisini belirlemek amacıyla yapılmıştır.

Yöntem: Araştırma "tek grup ön test-son test yarı deneysel tasarımda", Ocak ve Mayıs 2024 tarihleri arasında yürütülmüştür. Araştırmanın evrenini özel eğitim ortaokulunda okuyan 36 öğrenci, örneklemi ise araştırma kriterlerine uyan ve velisi onam veren 29 öğrenci oluşturmuştur. Araştırmanın verileri "Öğrenci Tanıtım Formu" ve "Doğru El Yıkama Değerlendirme Formu" ile toplanmıştır. Araştırmada hafif düzeyde zihinsel engelli ortaokul öğrencilerine bir oturumda ortalama 20 dakika dans destekli el hijyeni eğitimi verilmiştir. Verilerin analizi tanımlayıcı istatistikler ve McNemar testi kullanılarak yapılmıştır.

Bulgular: Araştırmada öğrencilerin giysi kollarını yukarı çekme, elleri bir miktar su ile ıslatma, musluğu kapatma, elleri bir miktar sabunla iyice köpürtme, parmak aralarını ovma, baş parmakları elinin içine alarak ovma ve parmak uçlarını el içine alarak ovma uygulamaları ön test ve son test puanları arasında istatistiksel olarak anlamlı bir farklılık belirlenmiştir ($p < 0,05$).

Sonuç: Araştırmada hafif düzeyde zihinsel engelli ortaokul öğrencilerine dans destekli verilen el hijyeni eğitiminin, öğrencilerin el yıkama basamaklarının %50'sinde uygulama becerilerini artırdığı belirlenmiştir. Bu sonuç doğrultusunda; hafif düzeyde zihinsel engelli ortaokul öğrencilerine verilen hijyen eğitimlerinin dansla desteklenmesi önerilir.

Anahtar Kelimeler: Dans; el hijyeni; engellilik.

Introduction

The number of disabled people is increasing in the world and Türkiye (Disability and Elderly Statistics Bulletin, 2024; WHO, 2024). The World Health Organization (WHO) defines the concept of disability as "a disadvantaged condition that occurs in a particular person and prevents and limits that person's ability to engage in activities that can be considered normal according to age, gender, social and cultural status" (WHO, 2024). The Turkish Language Association defines a disabled person as "a person who has lost physical, mental, spiritual, sensory or social abilities to various degrees due to any reason, either congenital or acquired, and who has difficulties in adapting to social life and meeting daily needs" (Turkish Language Association, 2024). It is reported that 1.3 billion people worldwide experience severe disability, and one in every six people has a disability (WHO, 2024). According to UNICEF data, the number of children with disabilities worldwide is approximately 240 million (UNICEF, 2024). In Türkiye, it is stated that the number of disabled people registered in the national disability data system and alive is 2.511.950 people, and the number of disabled individuals between the ages of 10-14 is 122.807. In addition, it is stated that the number of individuals with intellectual disabilities in Türkiye is 385.313, and the rate of intellectual disability is 17.07% (Disability and Elderly Statistics Bulletin, 2023).

Disability is classified as visual, hearing, speech and language, orthopaedic, mental, psychological and emotional, chronic illness and other (Disability and Elderly Statistics Bulletin, 2023). Mental disability is a condition that may occur due to various problems and affects the individual's life. WHO defines intellectual disability as "significant retardation in general mental functions from normal in the development process, impairment in all dimensions of intelligence, such as cognition, language, motor and social skills, and inadequate development or no development of intelligence" (WHO, 2024). According to the classification made by the American Association on Mental Deficiency, "intellectual disability is classified as borderline intellectual disability (70 - 85), mild intellectual disability (55 - 70), moderate intellectual disability (40 - 54), severe intellectual disability (25 - 39) and very severe intellectual disability (below 25)" (Luckasson et al., 2002).

Children with intellectual disabilities may experience many difficulties in realising their self-care skills. Children with intellectual disabilities may have difficulties performing basic self-care skills, such as toilet training, eating, dressing, hand-face washing, tooth brushing, nose cleaning and bathing, nail care, hair care and sexual organ cleaning. Children can acquire self-care skills in developmental stages through models, such as parents or opportunities given to them (Pesau, Widyorini, & Sumijati, 2020). However, it is more difficult for children with intellectual disabilities to acquire self-care skills and they also need to be supported. One of the self-care skills that children with intellectual disabilities have difficulty with is hygiene practices (Foundation for the Protection and Raising of Mentally Disabled Children, 2024). Supporting these children in hygiene is significant in terms of protecting and improving health and preventing infectious diseases (Yumru & Koç, 2021).

Hand hygiene is important among personal hygiene practices in individuals with intellectual disabilities. Keeping the hands clean eliminates the possibility of microorganisms living on the skin and infecting the individual, and mechanical transport prevents transmission to others. Acquisition and implementation of hand hygiene behaviours directly affect the individual's health (Çetinkaya et al., 2005). It is important for mentally disabled children to be supported with education to acquire correct hand hygiene behaviours to acquire correct health behaviours (Cavkaytar, 2005). School health nurses have crucial roles and responsibilities in the acquisition of hygiene behaviours by mentally disabled individuals studying in special education institutions. Nurses play a role in creating and implementing programmes that will increase the hygiene knowledge, skills and practices of mentally disabled students. It is important for nurses to support education with different methods, especially when educating individuals with intellectual disabilities (Yumru & Koç, 2021). Children with intellectual disabilities should be taught hand-washing skills using different educational methods (posters, simulations, scenarios, videos, role-playing) (Falus et al., 2020).

When the literature is examined, it is stated that different training techniques are effective in gaining self-care skills in children with intellectual disabilities (Yükselen, 2007; Ünal, Ece, & Yıkmış, 2016). In the study conducted by Ünal, Ece & Yıkmış (2016), it was determined that hand hygiene education given to mentally disabled children through singing increased hand-washing skills. In the study conducted by Yükselen (2007), creative drama was effective in the education of children with intellectual disabilities. In the study conducted by Karacan, Kaba, Yenigün, Aydın, & Bayazıt (2003), it was found that there were significant improvements in the skill levels of mentally disabled individuals with rhythm and dance activities. However, it is stated that intervention programmes should be implemented to increase hand-washing skills in students with intellectual disabilities (Irawan, 2021). When the studies in the literature are examined, it is seen that hygiene education in children with intellectual disabilities is supported by different educational methods, but dance-supported hygiene education is limited (Karacan et al., 2003; Yükselen, 2007; Ünal, Ece & Yıkmış, 2016).

Aim

This study was conducted to determine the effect of dance-supported hand hygiene education given to mildly mentally disabled secondary school students on students' hand-washing skills.

Hypotheses of the study

H_0: Dance-assisted hand hygiene training given to mildly mentally disabled secondary school students do not affect students' hand-washing skills.

H_1: Dance-supported hand hygiene training given to mildly mentally disabled secondary school students increase students' hand-washing skills.

Method

Study Design

This research was conducted using a single group pretest-posttest quasi-experimental design.

Study Setting

The present research was conducted on students studying in a Special Education Secondary School in the center of Ordu province

between 01 January 2024-01 May 2024. This institution is a special education for secondary school and secondary school students with mild intellectual disabilities receive education.

Study Population and Sample

The population of this study consisted of 36 students studying at Special Education Secondary School. No sampling method was used in this study, the whole population was taken as a sample and the study was completed with 29 students who met the research criteria and whose parents gave consent (Erdoğan, Nahcivan, &Esin, 2014). The study included 80.5% of the universe. Five students were not included in this study because they were enrolled but did not attend the classes and two students were not in the school at the time of this study. The inclusion criteria of the study were as follows: (i) being a student at a special education secondary school, (ii) communicable, (iii) students whose parents gave consent to participate in this study were included. The exclusion criteria of the study were as follows: (i) having hearing problems, (ii) having severe psychiatric diagnoses and (iii) students who did not want to continue the research.

Data Collection Tools

The data of this study were collected with the "Student Introduction Form" and "Correct Handwashing Evaluation Form".

Student Introduction Form: This form was prepared by the researchers in line with the literature (Kitiş & Bilgili, 2011; Mbakaya, Lee, & Lee 2017). The form consists of 11 questions including socio-demographic characteristics of the students "age, gender, class, family structure, father's education, mother's education, number of siblings, income level, place of residence, disease and medication use".

Correct Hand Washing Evaluation Form: This form was developed by Kitiş and Bilgili (2011) to evaluate students' hand-washing skills. The form consists of a 14-item checklist that includes the steps of correct hand washing and is used to control students' hand-washing skills. In the form, correct hand-washing skills are evaluated as "applied" and "not applied" for each step.

Data Collection

In this study, pre-tests were administered by the researchers to the students studying at the Special Education Secondary School who met the inclusion criteria and whose parents agreed to participate in the study. In the pre-test, the "Student Introduction Form" was filled in by the researchers from the information in the school records of the students. In the pre-test for the "Correct Hand Washing Evaluation Form," the researchers made observations by having each student practice hand-washing behaviour in the sink of the school and filled out the form. For the post-test data of this study, after the training, the "Correct Hand Washing Evaluation Form" was filled in by the researchers again by observing the hand-washing behaviour of each student in the sink of the school.

Hand Hygiene Training

The hand hygiene training content to be used in this study was prepared by the researchers in line with the literature (Kitiş & Bilgili, 2011; Yumru & Koç, 2021; Ministry of Health, 2024). The training content was created in a way that mildly mentally disabled secondary school students could understand. The training included hygiene, hand hygiene, situations where hands should be washed, points to be considered in hand washing, and correct hand-washing techniques. For the hand hygiene training content, the content validity index was calculated and found to be 0.90 by taking expert opinion from 2 Public Health Nursing, 1 Child Health Nursing, 1 Special Education Teacher and 1 School Health Nurse working in a special education institution. The prepared training content was given to the 5th (7 students), 6th (9 students), 7th (6 students), and 8th (7 students) grade students in their own classes as a separate session with a PowerPoint presentation. Initially, acquainted and introduction of the program (5 minutes), presentation of hand hygiene education with a power point presentation (10 minutes) and demonstration of dance-assisted hand-washing steps by the researchers (5 minutes) were carried out in each class in 20 minutes. In addition, each student was given a hygiene package (liquid soap, wet wipes and napkins) to increase their motivation to participate in the training.

Dance Support in Hand Hygiene Education: Hand hygiene education was supported with a dance performance by the researchers. The correct hand-washing steps prepared by the researchers in line with the literature (Kitiş & Bilgili, 2011; Yumru & Koç, 2021; Ministry of Health, 2024) were orally composed as music by a professional composer. The researchers performed the movements to be performed in the hand-washing steps through dance accompanied by the composed music. After this research was implemented, the dance-assisted hand hygiene training was recorded in a professional TV studio and made available to special education students (Supplement).

Ethical Considerations

Written permission from the institution where the research is conducted and Ethics Committee approval (date: 02.11.2023, number: 2023-188) were obtained from Ordu University Social and Human Sciences Ethics Committee. The purpose and benefits of this study were explained to the parents of the students, and their verbal and written consent was obtained. The parents were informed that the research results could be published for scientific purposes without revealing identity information.

Data Analysis

The data was analyzed by an expert statistician in the Statistical Package for the Social Sciences Version 23.0. The conformity of the data to normal distribution was evaluated by the normality test. Descriptive statistics (frequency, percentage, arithmetic mean, standard deviation, median, minimum and maximum) were used to distribute socio-demographic characteristics. The McNemar test was used to compare the pre-test and post-test hand-washing skills of the participants. The Content Validity Index was calculated by taking expert opinions for the training content. The significance level $p < 0.05$ was taken in this study.

Results

The mean age of the students within the scope of this study was 12.97 ± 1.21 (Min:10; Max:15), 55.2% were male, 31.0% were in the 6th grade, 37.9% of the father and 34.5% of the mother were primary school graduates, 96.6% were in a nuclear family structure, 72.4% had an average family income level, the mean number of

Table 1: Distribution of Socio-Demographic Characteristics of Students (n = 29)

	Mean ± SD	Median (Min. - Max.)
Age	12.97 ± 1.21	13.00 (10 - 15)
Number of Siblings	2.31±1.49	2.00 (0.00 - 6.00)
	n	**%**
Gender		
Female	13	44.8
Male	16	55.2
Classroom		
Grade 5	7	24.1
Grade 6	9	31
Grade 7	6	20.7
Grade 8	7	24.1
Family Structure		
Nuclear family	28	96.6
Extended family	1	3.4
Father Education		
Literate	1	3.4
Primary School	11	37.9
Middle School	7	24.1
High School	9	31
University	1	3.4
Mother Education		
Illiterate	2	6.9
literate	2	6.9
Primary School	10	34.5
Middle School	6	20.7
High School	8	27.6
University	1	3.4
Income Level		
Good	1	3.4
Middle	21	72.4
Bad	7	24.1
Place of Residence		
Village	1	3.4
District	2	6.9
Province Centre	26	89.7
Medication use status		
Uses	10	34.5
Does not use	19	65.5

SD: Standard deviation; Min: Minimum value; Max: Maximum value

siblings was 2.31 ± 1.49, 89.7% lived in the provincial center and 34.5% used regular medication (Table 1).

A statistically significant difference was found between the students' pre-test and post-test pulling up garment sleeves practices (p = 0.002). In the pre-test, 44.8% and in the post-test, 86.2% of the students performed the step of pulling up garment sleeves. A statistically significant difference was found between the students' pre-test and post-test wetting hands with some water practices (p = 0.003). In the pre-test, 48.3% of the students and in the post-test, 86.2% of the students applied the step of wetting hands with some water. A statistically significant difference was found between the students' pre-test and post-test switching off the tap practices (p = 0.002). In the pre-test, 27.6% of the students and in the post-test, 62.1% of the students performed the step of switching off the tap.

There was no statistically significant difference between the students' pre-test and post-test getting some liquid soap in your hand practices (p > 0.05). A statistically significant difference was found between the students' pre-test and post-test lathering hands thoroughly with some soap practices (p = 0.031). In this study, 69.0% of the students in the pre-test and 89.7% in the post-test applied the step of lathering hands thoroughly with some soap. A statistically significant difference was found between the students' pre-test and post-test rubbing between fingers practices (p = 0.001). 17.2% of students in the pre-test and 62.1% in the post-test applied the step of rubbing between fingers statistically significant difference was found between the students' pre-test and post-test Rubbing by taking the thumbs into the hand practices (p = 0.016). In the pre-test, 24.1% and in the post-test, 48.3% of the students applied the step of rubbing by taking the thumbs into the hand.

There was no statistically significant difference between the students' pre-test and post-test hand back rub practices (p = 0.388). There was no statistically significant difference between the students' pre-test and post-test wrist rub practices (p = 0.125). A statistically significant difference was found between the students' pre-test and post-test fingertips in the hand and rubbing practices (p = 0.006). In the pretest-posttest, 24.1% of the students and the posttest, 58.6% of the students applied the step of fingertips in the hand and rubbing. There was no statistically significant difference between the students' pre-test and post-test rinsing hands thoroughly practices (p = 0.625). There was no statistically significant difference between the students' pre-test and post-test closing the tap with a paper towel practices (p = 0.219). There was no statistically significant difference between the students' pre-test and post-test drying hands thoroughly practices (p > 0.05). There was no statistically significant difference between the students' pre-test and post-test throw paper towel in the bin practices (p > 0.05).

Discussion

This study was conducted to determine the effect of dance-supported hand hygiene training given to mildly mentally disabled secondary school students on students' hand-washing skills, which are discussed in this section in line with the literature. In this study, a statistically significant difference was determined between the pre-test and post-test pulling up garment sleeves, wetting hands with some water, switching off the tap, lathering hands thoroughly with some soap, rubbing between fingers, rubbing by taking the thumbs into the hand and fingertips in the hand and rubbing practices (p < 0.05). These findings of the study support the hypothesis of H_1. When the studies conducted on students with intellectual disabilities in the literature are examined, in Choi, Wong, & Chung (2012) study, "to motivate children with intellectual disabilities to learn handwashing and improve their performance

Table 2: Comparison of Pre-Test and Post-Test Hand-washing Skills of Students (n = 29)

	Pre-test		Post-test		Test Statistic†
	n	%	n	%	p
Pulling Up Garment Sleeves					
Did not apply	16	55.2	4	13.8	**0.002**
Implemented	13	44.8	25	86.2	
Wetting Hands with Some Water					
Did not apply	15	51.7	4	13.8	**0.003**
Implemented	14	48.3	25	86.2	
Switching off the tap					
Did not apply	21	72.4	11	37.9	**0.002**
Implemented	8	27.6	18	62.1	
Getting Some Liquid Soap in Your Hand					
Did not apply	3	10.3	1	3.4	0.500
Implemented	26	89.7	28	96.6	
Lathering Hands Thoroughly with Some Soap					
Did not apply	9	31	3	10.3	**0.031**
Implemented	20	69	26	89.7	
Rubbing Between Fingers					
Did not apply	24	82.8	11	37.9	**0.001**
Implemented	5	17.2	18	62.1	
Rubbing by taking the thumbs into the hand					
Did not apply	22	75.9	15	51.7	**0.016**
Implemented	7	24.1	14	48.3	
Hand Back Rub					
Did not apply	18	62.1	14	48.3	0.388
Implemented	11	37.9	15	51.7	
Wrist Rub					
Did not apply	26	89.7	22	75.9	0.125
Implemented	3	10.3	7	24.1	
Fingertips in the Hand and Rubbing					
Did not apply	22	75.9	12	41.4	**0.006**
Implemented	7	24.1	17	58.6	
Rinsing Hands Thoroughly					
Did not apply	4	13.8	2	6.9	0.625
Implemented	25	86.2	27	93.1	
Closing the tap with a paper towel					
Did not apply	28	96.6	24	82.8	0.219
Implemented	1	3.4	5	17.2	
Drying Hands Thoroughly					
Did not apply	3	10.3	1	3.4	0.500
Implemented	26	89.7	28	96.6	
Throw Paper Towel in the Bin					
Did not apply	6	20.7	1	3.4	0.063
Implemented	23	79.3	28	96.6	

†: McNemar test; **p < 0.05**

using computer-assisted instruction method", children in the experimental group participated in computer-based training that included animated faucets, soap dispensers and towels that could be controlled by hand, while children in the control group participated in training that included traditional instruction. Both groups received 30-minute handwashing training twice a week for two months. It was determined that the handwashing performance and learning motivation of the children who participated in computer-based handwashing training increased more than those who received traditional training.

Walmsley, Mahoney, Durgin, & Poling, (2013) determined the effect of hand hygiene training given to individuals with special needs on hand-washing skills before lunch; hand hygiene training was provided to individuals with special needs with rewarding. As a result of the training, Glo Germ lotion, seen in black light, was used to determine the hand-washing quality of individuals with special needs. It was determined that the hand-washing skills of the participants increased before lunch. Lee and Lee (2014) evaluated "the effect of a simplified 5-step multimedia visualization hand hygiene improvement program applied to students with mild intellectual disabilities", hand-washing training was applied to students for 15 minutes every weekday for four weeks. At the end of the training, a glow gel containing plastic-simulated microbes that can be seen under an ultraviolet lamp was applied to the hands of the students. It was determined that the hand-washing quality of the students in the intervention group increased more than the control group. Gardner and Wolfe (2015) evaluated the effect of video-assisted education on daily living skills of students with intellectual disabilities. Their findings showed that video-assisted education for students with intellectual disabilities was effective in daily living skills, which was effective in daily living skills.

Lee et al. (2015) determined the applicability and sustainability of an education method including five-step hand-washing techniques supported by audio and visual materials in students with mental disabilities; hand hygiene was evaluated with ultraviolet light stain test and photography before and after the 12-week hygiene education. It was found that the students who participated in the education, including five-step hand-washing techniques, had better hand-washing functionality than the students who participated in the routine hand hygiene education of the WHO. Ünal et al. (2016) evaluated the effectiveness of teaching in teaching self-care skills to children with mental disabilities through songs; it was found that hand-washing skills increased due to the education given to students with mental disabilities through songs. Hidayati, Akrom, Nurasa, & Erviana (2019) evaluated the effect of health education given to children with mental disabilities through audiovisual methods; it was determined that the level of knowledge about personal hygiene increased in children with mental disabilities.

Kang and Chang (2019) evaluated the effects of hand hygiene education given through gamification to primary school students with mental disabilities on the students' independent hand-washing performance; hand hygiene education was given to primary school students with mental disabilities through gamification using the Kinect V2 sensor and hand-washing skills were evaluated after two weeks, and it was found that the hand-washing skills of the students with mental disabilities increased as a result of the training. Deochand, Hughes, & Fuqua (2019) evaluated the effectiveness of video-assisted hand hygiene education applied to students with emotional and developmental disabilities; they found that the students' hand-washing skills increased in the evaluation made by applying a fluorescent light emitting substance under ultraviolet (UV) light. Utami and Pujaningsih (2021) evaluated the effectiveness of the "6 Steps to Hand-washing" video media to improve the skill of washing hands correctly in children with mental disabilities; hand hygiene education was given to 7th-grade students with mental disabilities using the "6 Steps to Hand-washing" video media and the students' hand-washing skills increased after the training. Nazirun and Sari (2023) evaluated the effectiveness of health education given to mentally disabled children using audiovisual media on handwashing skills; it was found that the handwashing skills of mentally disabled children increased because of the education.

In our study, hand hygiene education given to mentally disabled students with dance support increased the students' hand-washing skills. It is thought that the support of hand hygiene education given to mentally disabled secondary school students with dance and the hygiene kits given to the students during the education were effective. In the present study, no statistically significant difference was found between the pre-test and post-test practices of the students in getting some liquid soap in your hand, hand back rub, wrist rub, rinsing hands thoroughly, closing the tap with a paper towel, drying hands thoroughly and throwing paper towel in the bin ($p > 0.05$). It is thought that the fact that only one session of hand hygiene training was given to middle school students with mild mental retardation was effective in this result.

Limitations

Given that this study has been conducted only on mentally disabled students studying in a special education school, it has limitations in terms of generalizability of the results. However, providing hand hygiene training to students with mild mental disabilities in one session in this study creates limitations in terms of creating behavioral changes in hand hygiene and ensuring the permanence of the behavior.

Conclusion

In this study, it was found that the hand hygiene training given to middle school students with mild mental disabilities with dance support increased the students' skills in the correct hand-washing steps: pulling up the sleeves, wetting the hands with a bit of water, turning off the tap, lathering the hands with a little soap, rubbing between the fingers, rubbing the thumbs in the hand and rubbing the fingertips in the hand. It was determined that their application skills in 50% of the correct hand-washing steps increased. In line with these results, it is recommended that the hand hygiene training given to middle school students with mild mental disabilities be supported with dance, and that the video support prepared within the scope of this study be used in the hand hygiene training given to mentally disabled students by school health nurses. It is recommended that long-term training should be given to mentally disabled students to gain correct hand-washing behavior and that similar studies be conducted on mentally disabled students studying in different special education institutions.

Ethical Considerations: Ethical approval was obtained from the Ethics Committee of Ordu University Social and Human Sciences for this study (Date: 02.11.2023 and No: 2023/188).

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Supplement

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