Nursing Students' Communication, Attitude and Willingness to Care for Persons with Disabilities

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Abstract

Background: Nursing students, the future nurses, are further inevitably providing healthcare for persons with disabilities (PWDs) in different care settings. The study aim was to explore nursing students' communication, attitude and willingness to care for persons with disabilities. Subjects and Methods: Design: A descriptive design was utilized. Subjects: A purposive sample of 452 undergraduate fourth-year nursing students. Settings: the study was carried out in Faculty of Nursing, Zagazig University, Egypt. Tool of data collection: Four tools were used including a questionnaire sheet of socio-demographic data, communication with disabled patients scale, attitude toward disabled person scale, and willingness to care for patients with disabilities scale. Results: The results revealed that 77.9% of the participants were females and 60.4% of them showed good communication with disabled people. Meanwhile, 51.1% of the students had positive attitude toward persons with disabilities and 49.3% of the nursing students had low level of willingness to care of them. Conclusion: Nursing students have good communication skills and more than half of them showed a positive attitude towards persons with disabilities while more than half of the students are unwilling to provide care for them. Recommendations: Educational interventions for nursing students before starting the internship year are crucial for enhancing their abilities to provide disability-related quality care to such vulnerable group.

Keywords: Nursing students, Communication, Attitude, Willingness to care, and Persons with Disabilities.

Introduction

Disability represents a global health issue existing in low, middle, and high, income countries affecting around 1 in 7 people (15% of the population) worldwide. Those who are poor, older, and female are more likely to have a disability. According to the United Nations, approximately 80 percent of people with disabilities live developing countries. percentages of disabled persons are growing due to contributing factors including population growth, ageing, medical advancements preserve and prolong life. As a result, there is a growing need for health services. (1)

Persons with disability need access to health care for the same reasons as people without a disability in addition to reasons relating to disability. Their Access to appropriate and high-quality health services will be

beneficial since it can guarantee prompt treatment of disease or injury and prevent the emergence of new health disorders or the deterioration of pre-existing ones. Furthermore, the wider community gains significantly from the provision of disability-inclusive health services (2).

Evidence reveals that people with disability, compared to the general population, have worse health outcomes, more unmet health needs, and unequal access to health care services throughout the course of their lives. Disability-related health care demands, both general and specific, are frequently not met sufficiently by health systems. When attempting to access health care, people with disabilities face a variety of barriers ⁽³⁾.

Lack of communications in health care settings; untrained staff

and inadequate staffing; negative attitudes of healthcare providers; harmful practices, particularly about people with psychosocial disabilities; and treatment denial based on disability are just a few examples of these barriers (1). Many of these barriers can be avoided and the disadvantage associated with disability can be overcome (3). The third Sustainable Developmental (SDG); good health and well-being emphasize the importance of universal health-care access to services including people with disabilities. Achieving this goal is essentially based on addressing barriers to health services experienced by people with disabilities (2).

An important aspect of nursing is caring for persons who have disabilities as well all nurses have the responsibility to promote an accepting and inclusive culture that respects each person's value and contribution and does not engage in any form of discrimination ⁽⁴⁾.

It is inevitable that nurses will have the chance and duty to provide direct care to patients with disabilities across all practice settings. In addition to realizing their own theory-to-practice gap and the potential outcomes while caring for a person with disability (PWD), nurses will see firsthand the PWD experience barriers that throughout the health care systems (5). Moreover, nurses assist disabled people and their caregivers as needed, in all aspects of their lives regardless of their residential or care setting (4).

Nurses' attitudes disability can influence the provision of high-quality care, both positive and (6) negative An attitude significantly empower or restrict a person's ability to engage in their most important daily tasks. Nursing students are the future nurses and their attitudes toward people with disabilities significant factors in (7). Positive rehabilitation process

attitudes of nursing students would assist in further improving the provided care to PWDs (6). Furthermore, the delivery of safe and compassionate person-centered care depends on effective communication. Nurses must be able to communicate and manage relationships with people of all ages with a range of mental, physical, cognitive disabilities in all fields of nursing practice. Where people have special communication needs or a disability, it is crucial to make reasonable adjustments communicate, provide and share information in a manner that promotes understanding optimum and engagement and facilitates equal access to high quality care (8)

Significance of study

Disability is a major public health issue in Egypt, affecting more than 10% of the population and significantly impacting 25% of the population (People with disabilities and their families). Low socioeconomic groups are disproportionately impacted by disability. If no control measures are implemented, the patterns in disability tend increase in the next years ⁽⁹⁾.

Although Egypt has put in place sufficient legislative and policy frameworks to ensure availability and access to healthcare services for disabilities. persons with implementation and enforcement have been inadequate due to budgetary, attitudinal. and other capacity constraints (10). In order to overcome the situation, more knowledge is needed about the present situation of the nursing students', future nurses; attitude communication, willingness to care for PWDs. In the Egyptian context, this area is reported to be less likely studied and this research study addresses the gap.

Aim of the study

The study aim was to explore nursing students' communication,

attitude and willingness to care for persons with disabilities.

Research questions:

- 1. How does the nursing students communicate with disabled people?
- 2. What is the attitude of nursing students toward persons with disabilities?
- 3. What is the level of willingness to care for persons with disabilities among nursing students?

Subjects and methods

Research Design:

A descriptive research design was utilized to conduct this study.

Study setting:

This study was carried out at Faculty of Nursing, Zagazig University during the academic year 2021 \ 2022.

Study subjects:

A purposive sample of 452 fourth grade nursing students, both sex, who agreed to participate in the study, and completed the data collection tools, were recruited in this study.

The reason behind choosing the fourth-year students is that they have gone through clinical experiences to care for people with disabilities, and soon they will start the internship, and then they will decide to work in different health institutions. So, they are suited to explore communication, attitude and willingness to care for persons with disabilities.

The sample size calculation:

The sample was calculated by software Epi-info package, assuming a prevalence of positive attitude among nursing students towards people with disability is 50 % from 840 nursing faculty fourth degree students, level of confidence 95%, margin of error 5% and power of test were 80%. The sample size is 452 nursing students.

Tools of Data Collection:

Four tools were demonstrated to collect data of the present study:

Tool I: A questionnaire sheet of socio-demographic data of the students as age, gender, residency, and family income in addition to questions about previous experience in disability as dealing with disabled relative, attending course about disability or studying at inclusive schools.

Tool II: Communication with Disabled Patients Scale

This scale was developed by Al Kanani (11) to assess communication skills in dealing with patients with disabilities. This scale is adopted in Arabic language. It comprised totally of 60 items divided into 4 communication skills "Dialogue and discussion with the patient, listening to patients, Sympathy for patients, Acceptance and caring for patients". Each skill consists of 15 Respondents are asked to items. describe their communication skills with disabled people Likert scale categorized as; always, sometimes, and rarely.

Scoring: The items were scored 1, 2, and 3 for the responses rarely, sometimes, and always, respectively. The total score was 180, and the participants were considered to have good communication skills if the percent score was 60% (> 108) or more, and poor communication skills if less than 60 % (< 108).

Tool III: Attitude Toward Disabled Person Scale (ATDPS)

This scale was developed by **Al-Harony** ⁽¹³⁾ and it has been used for the measuring the attitude toward persons with disabilities. This scale is adopted in Arabic language. The scale entails 36 items, 15 positive and 21 negative statements. Positive items include [2, 4, 6, 8, 10, 12, 14, 16, 20, 22, 24, 26, 28, 30, and 32]. The answers to questions are on a 5- point

Likert scale ranging from completely agree to strongly disagree.

Scoring: The scores of responses were 1 (completely disagree), 2 (disagree), 3 (Uncertain), 4 (agree), and 5 (completely agree). The scoring was reversed for negative statements. The highest score is 180 and the lowest one is 36 points. Below the mean score indicates negative attitudes towards persons disabilities and above the mean score of the students indicates more positive attitudes.

Tool IV: Willingness to Care for Disabled Persons Scale

The original Elderly Patient Care Inventory questionnaire rating scale was developed by Aday and Campbell (1995) to measure the willingness of nursing students to care for older people. (12). This scale is adopted in English language with replacing caring for person with disabilities instead of care for elderly patient. The scale consists of 12 items: 6 framed in a positive manner [Items 1-6] and 6 negatively [Items framed Respondents are asked to describe their willingness to care for people with disabilities through a 5-point Likert scale, i.e., 'completely agree' to 'completely disagree'.

Scoring: The responses completely agree, agree, uncertain, disagree and completely disagree were respectively scored 5,4,3,2 and 1. The scoring was reversed for negative statements. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score. Below the mean score of the students on the willingness scale represents low willingness and above the mean score of the students represents high willingness to care for disabled persons.

Validity and reliability

Face and content validity of study tools were revised by a panel of

three experts in the fields of community health nursing, disability rehabilitation, and community medicine Zagazig University and modifications were recommended. The scales in this study were found to have internal consistency reliability, as indicated by values of Cronbach's coefficient, which were as; .877 for Communication Scale, .749 for Willingness Scale and .881 for ATDPS.

Pilot study

A pilot study was performed to test the feasibility, clarity, applicability, and the time required for completion of the data collection questionnaire. It was carried out on 45 nursing students, representing about 10 % of the total study sample. As there was no modification made to the data collection tools, the students who participated in the pilot were included in the main study sample.

Fieldwork

Official permission obtained from the dean of Faculty of Nursing, then the researchers met the students in individual or groups and briefly explained the aim of the study before distributing the questionnaires for them. Each student had self-paced time to complete the tools of data collection whether at a time or return later. The average time needed to complete the tools of data collection ranged between 30 and 50 minutes to complete. The actual fieldwork lasted from the beginning of October 2021 to the end of December 2021.

Administrative and Ethical Considerations

The study proposal was approved by the Research Ethics Committee (REC) of Zagazig University's Faculty of Nursing. Official permission was obtained by the researchers from the dean of the faculty before data collection. Also, Informed consent was gained after full explanation of the study's aim to the

students. The students filled out the tools voluntarily and anonymously, and the data obtained kept confidential and utilized only for research purposes. Also, they have the right to refuse and withdraw from completeness of tools at any time, without any penalty or any responsibility.

Statistical design

Statistical software SPSS 22.0 was used for data entry and statistical analysis. For qualitative variables, data were presented using descriptive statistics in the form of frequencies and percentages. While quantitative variables were presented by means and standard deviations. interrelationships between ranked and quantitative variables were assessed using the Spearman rank correlation. After conducting tests for normality, homoscedasticity, and analysis of variance for the complete regression models, multiple linear regression analysis was used to determine the independent predictors of the attitude, communication, and willingness scores. At a p-value of 0.05, statistical significance was considered.

Results

Table 1 shows that the mean age of the participants was 21.80 ± 1.22 years and 77.9% of them were females. Also, 78.3% of the students came from rural areas. Regarding students' family income, 81.6% of them had sufficient income. As it is obvious, 20.6% of the participants had a disabled relative whereas 42.9% of them interact with disabled persons. As displayed, 70.1% of the students were not attending courses about disability and only 11.7% of them study at inclusive schools.

Figure 1 demonstrates that 51.1% of the students had positive attitude toward persons with disabilities.

Figure 2 demonstrates that 60.4% of the students had good communication with disabled people.

Figure 3 demonstrates that 49.3% of the students had a low level of willingness to care for persons with disabilities.

Table 2 indicates that study setting had only positive significant correlation with communication score (r=.127). Meanwhile, students' willingness to care had positive correlation with their sex (r=.180), and attending disability course (r=.093), and a negative correlation with age (r=-.272). On the other hand, attitude scores had positive correlation with study setting (r=.138), sex (r=.228), and attending disability course (r=.108) and a negative correlation with age (r=-.120) and income (r=-.102).

Table 3 indicates that the multivariate analysis identified that students' sex, studying course about disability and studying at inclusive school were statistically significant positive predictors of their attitude score. Conversely, residence was the only negative predictor. The model explains 26% of attitude score as shown by the value of r square.

Table 4 demonstrates that students' income, studying at inclusive school, and attitude score were statistically significant positive predictors of their communication with persons with disabilities. On the other hand, sex and attending disability course were negative predictors. The model explains 78% of communication score as shown by the value of r square.

Table 5 indicates that the multivariate analysis identified that students' attitude and communication scores were statistically significant positive predictors of their willingness to care for persons with disabilities. The model explains 26% of willingness score as shown by the value of r square.

Discussion

This study conducted to explore communication, attitude and willingness to care for persons with disability among fourth-year faculty nursing students. Fourth-year nursing students were chosen as they must work with people with disabilities soon after graduation.

In the present study, most of the participants were female. This is due to feminization nature of nursing profession in Egypt which is consistent with the previous Spain studies of **Castanyer** (14) and **Ruiz et al.** (15) and the Nigerian study of **Olaoye et al.** (16).

The current study results revealed that the majority of nursing students had no prior experience in dealing with persons with disabilities. This might be due to lack of exposure of the students to persons with disabilities in the different clinical settings during their clinical training. Similarly, Polikandrioti et al. (17) in Greece. found that 68.8% and 68.7% of nursing students in their first and seventh semester, respectively, had no prior exposure to persons with disabilities. Likewise, Olaoye et al. (16) found that most of the participants (91.4%) reported having little or no contact with PWDs. However, Ruiz et al. (15) reported that 44% of the participants had never interacted with persons with disabilities. Contrarily, Kronk et al. (18) found that 53% of nursing students reported having a friend or relative with a disability and most of students had interactions with PWDs in a variety of settings when they began their second year.

According to this study findings, more than half of nursing students had positive attitude toward PWDs which is consistent with the previous studies of **Olaoye et al.** (16); **Polikandrioti et al.** (17) and **Ruiz et al.** (15). Besides that, **Alahmari et al.** (7) found that nursing students showed significant positive attitudes toward disability compared

with other students. On contrary to this finding, the Ghanaian study of **Awoyera** (19) found that despite coming from a different cultural background, nursing students still showed a negative attitude towards people with disabilities. This disparity in attitudes may be brought on by cultural differences and variations in nursing curricula across countries.

The present study results revealed differences between gender disability attitudes with females to be more positive, which was confirmed by the multivariate analysis of the study. This finding might be because women tend to exhibit more positive attitudes, perhaps because giving care is more in line with their outgoing personalities. On contrary, Girli et al (20) and Polikandrioti et al. (17) indicated that male participants had more positive attitudes. However, as most of the study samples were female, it is not always possible to compare women and men fairly. Therefore, it is recommended that understanding how gender plays a role in attitudes and concerns is essential for creating effective educational interventions.

Also, students who attend disability courses had a more positive attitude toward people with disabilities. This might be explained by the fact that prior knowledge on the issue of beneficial disability had a and constructive effect on raising awareness and developing favorable attitude. Similarly, **Uysal et al.** (21) and **Miles** (6) reported that prior knowledge education of undergraduate nursing students regarding provision of care to people with disabilities within family or social life was a significant factor that shaped positive attitudes.

Another study conducted in Greece by **Adamakidou et al.** (22) found that nursing students' attitudes improved as the semesters progressed, showing that exposure and education had a positive influence as increasing

exposure and awareness to disability within nursing curricula would serve to increase nursing students' positive attitudes. These results could lead to curriculum change for all disabilities as negative attitudes prevent people with disabilities from receiving adequate healthcare and being included in society (23)

According to the multivariate analysis of the current study, living in a rural location was a negative predictor of the students' attitudes towards disabilities. This finding might be due to that in rural areas the understanding of disability remains limited. This result is consistent with Neille & Penn (24), who indicated that disability awareness in rural areas, where marginalisation and discrimination persist alarmingly, is a challenging issue. Hence, significant effort is required across all regions to combat prejudice and eliminiate negative attitudes towards people with strategies, disabilities through legislative changes and long-term programmes. However, Girli et al (20) found that male students, students from low-income families, and students from rural areas scored higher on attitudes about disability.

The findings of the current study also showed that students in inclusive schools who had disabled peers had positive attitude toward PWDs. This finding might be explained by the fact that close contact of the students with people with disabilities in the school led them to be more comfortable and confident in their abilities to care for the disabled and changed their attitudes. students who had interaction consider disabled people more valuable in social life and never treat them with contempt or rejection. Positivity is demonstrated when one views a disabled person as a useful member of society without feeling sorry for him.

In the same line with this finding, Klooster et al. $^{(25)}$ indicated that having a friend or relative with a

physical disability is a factor that significantly fosters positive attitudes in nursing students. Contrarily, the findings of **Ruiz et al.** (15) found that early exposure to mental disability during the school years is a risk factor for developing a negative attitude towards disability. Nonetheless, **Polikandrioti et al.** (17) have shown that there is no significant correlation between attitudes and prior contact with a disabled person.

According to the present study, three fifths of the students had good communication with disabled persons. This finding may be attributed to that communication has become a key component of the nursing curriculum which is consistent with the goals of nursing education programs across the country and has been identified as an essential competency. Therefore, the students felt more confident and assured about their future communication with patients with disabilities. This is supported by the report of Ministry of Health NSW (26) in which there is emphasis that communication should always be addressed in the first instance to the person with disability related to issues treatment. comfort. services. supports, amenities and needs relating to their disability.

In contrast to this finding, Smeltzer et al. (27) reported there was poor communication between nursing staff and patients with disabilities in the form the nursing staff's failure to listen to disabled patients and their denial of the chance for them to learn about their own disabilities, medications, or assistive device needs. Likewise, the Indian study of Hilalulla et al. (28) found that more than half of the students have a negative interaction persons with disabilities. Nevertheless, (23)Sahin et al. indicated that communication deficit is a major issue cited by students during the provision of care. Therefore, it is suggested the implementation of disability-related communication skills in clinical settings

in addition to teaching students the appropriate and practical methods of communication skills ⁽²⁹⁾.

The findings of the current study showed that students' attitude score, attendance at an inclusive school, and income were statistically significant positive predictors of PWDs. communication with Consistently, Abdi and Metcalf (30) reported that students who had prior contact with intellectually disabled people felt comfortable communicating with them. However, on contrary to these findings, Abdi and Metcalf (30) also found that effective communication with a patient who has an intellectual disability took more effort. Because it takes more work, many people choose not to try, which results in students' negative attitudes towards those who have an intellectual disability.

On the other hand, this study results revealed that nursing students' sex and attending disability course were negative predictors of their future communication with disabled people. However, Hilalulla et al. (28) found, in contrast to these findings, that there is no statistically significant difference in the nursing students' interactions with people with disabilities based on their gender and location. Likewise, Abdi and Metcalf (30) indicated that the students without previous experience benefited more from the disability teaching course since they were taught how to communicate with these patients. Participants talked about their preconceptions and how, in the absence of exposure, individuals must rely on their own, potentially flawed, judgements. These misconceptions are the result of a lack of knowledge and exacerbate student anxietv. addition, Temple and Mordoch (31) indicated that second-year nursing students reported a greater lack of knowledge about communication methods they could use to interact with people with intellectual disabilities.

According to the present study results, slightly less than half of the students showed a low level of willingness to care for PWDs. This might be as a result of the student's lack of past exposure to and direct interaction with patients impairments, as well as their lack of confidence in their ability to provide care for impaired patients. Being the carer for these individuals made them feel unprepared and anxious. are also uninformed about the rights and medical requirements of disabled individuals. This is supported by Polikandrioti et al. (17), who found that nursing students may be unfamiliar with and experience anxiety and embarrassment when in contact with those who have disabilities. These are some of many contributing factors that may influence the students' decision to be involved in caring for people with disabilities. Although, Australian Nursing & Midwifery Federation (4) emphasized that providing care for people living with disabilities is an important aspect of nursing and midwifery as all nurses, midwives, and nursing assistants have a responsibility to work towards an inclusive culture that does not discriminate against or devalue any person's worth or contribution.

According to the present study multivariate analysis, students' communication and attitude scores were statistically significant positive predictors of their willingness to care for PWDs. In the same vein, Kronk et al. demonstrated that poor communication, lack of competence, negative attitudes, and quality of care by nursing staff are concerns raised by people with disabilities. Consistently, Abdi and Metcalf (30) found that all participants felt that a communication barrier influenced people's attitudes towards intellectual disability and led to inequality in health care. Moreover, Smeltzer et al. (32) and Adamakidou et al. (22) found that a significant barrier to providing high-quality healthcare is attitude of health care personnel and their inability to effectively and appropriately communicate with people with disabilities.

So, this study findings are important to provide information about communication, attitudes and willingness to care of PWDs among nursing students who are the future nurses, in order to develop more tailored interventions which subsequently improve nursing care provided to such vulnerable group.

Conclusion

Based upon the study results, it was concluded that nursing students have good communication skills and more than half of them showed a positive attitude towards persons with

disabilities however, more than half of the students are unwilling to provide care for them.

Recommendations

- Educational interventions for nursing students before starting the internship year are crucial for enhancing their abilities to provide disability-related quality care to such vulnerable group.
- Replicate the study in different settings for more generalization of the findings.

Table (1): Demographic characteristics of participants in the study sample (n=452)

Demographic characteristics	No.	%
Age.:		
20-21	294	65.0
22-24	158	35.0
Mean ± SD	21.80 ± 1.22	
Gender:		
Male	100	22.1
Female	352	77.9
Residence:		
Rural	354	78.3
Urban	98	21.7
Income:		
Insufficient	72	15.9
Sufficient	369	81.6
Saving	11	2.4
Having a relative with disability		
Yes	93	20.6
No	359	79.4
Interaction with disabled persons		
Yes	194	42.9
No	258	57.1
Attending disability course		
Yes	135	29.9
No	317	70.1
Studying at inclusive school		
Yes	53	11.7
No	399	88.3

Figure (1): Distribution of attitude toward PWDs among nursing students (n=452)

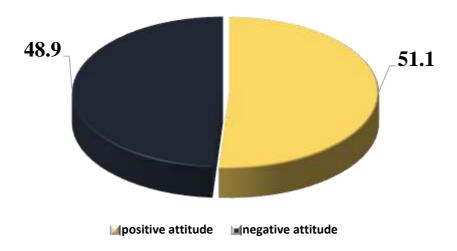


Figure (2): distribution of communication with PWDs among nursing students (n=452)

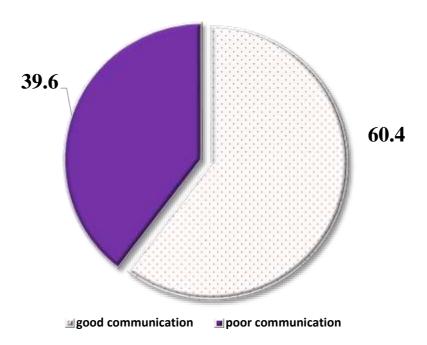


Figure (3): Distribution of willingness to care for PWDs among nursing students (n=452)

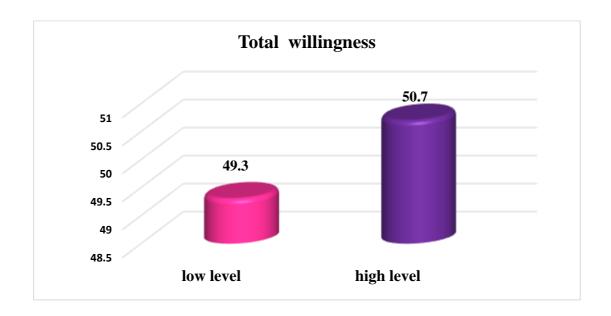


Table (2): Correlation matrix of students' communications, care willingness and attitude scores and their demographics characteristics

Scores	Spearman's rank correlation coefficient			
	Communication	Willingness	Attitude	
Age [22-24]	081	272**	120*	
Sex [Female]	076	.180**	.228**	
Income [Saving]	.023	011	102*	
Attending disability course	055	.093*	.108*	

^(**) Statistically significant at p<0.01

Table (3): Best fitting multiple linear regression model for attitude scores

Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta	_	
Constant	.312	.361		.866	.387
Sex	.146	.051	.121	2.847	.005
Residence	084	.051	069	-1.665	.097
Attending disability course	.119	.046	.109	2.574	.010
Studying at inclusive school	.132	.066	085	2.001	.046
R-square=0.26 Model ANOVA: F	=13.05,	p<0.00			

Table (4): Best fitting multiple linear regression model for communication skills scores

Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta	_	
Constant	.812	.393		2.066	.039
Sex	105	.056	089	-1.869	.062
Income	.111	.063	.083	1.761	.079
Attending disability course	096	.051	090	-1.891	.059
Studying at inclusive school	.193	.072	.127	2.682	.008
Attitude score	.151	.052	.154	2.920	.004
R-square=0.78 Model ANOVA: F=	=3.08,	p<0.001			

Table (5): Best fitting multiple linear regression model for willingness scores

Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
Constant	.419	.359		1.169	.243
Attitude score	.435	.042	.435	10.247	.000
Communication Score	.071	.043	.069	1.632	.103
R-square=0.26	Model ANOVA:	F=14.15,			p<0.

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