



Article

The Role of Community Nursing in the Prevention of Chronic Diseases among Young People

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Abstract: This study aims to evaluate the level of awareness, participation and general perception of the role of community nursing in the prevention of chronic diseases among young people. A descriptive cross-sectional study and included (100) participants from different age groups and educational levels. Data were collected using a pre-prepared questionnaire that included four main axes: demographic characteristics, level of awareness of the role of community nursing, participation in awareness activities and general perception of the effectiveness of preventive programs, in addition to the challenges facing this role. The results indicated that most of the participants belong to the age group of 18-25 years, at a rate of 45%, and that most of them hold university degrees, 55%. It also showed that the level of awareness of the concept of community nursing reached 60%, while the percentage of participation in awareness activities reached only (35%). (50%) of the participants reported that the role of community nursing is somewhat effective, while (55%) described the preventive programs as moderately effective. As for most chronic diseases According to the participants, the most prevalent diseases were diabetes (55%), obesity (45%), and high blood pressure (40%). The most common preventive methods were following a healthy diet (70%) and regular physical activity (65%). The results showed that the most prominent tasks of community nursing mentioned were organizing awareness campaigns (55%) and following up on high-risk cases (50%). Statistical analysis (Chi-square test and multiple logistic regression) showed no statistically significant relationships between the demographic variables of age, gender, educational level, and the level of awareness, participation, or perception of effectiveness at ($p > 0.05$) However, a positive trend was observed indicating an increase in awareness with the rise in the educational level and an increase in participation among males compared to females. The results show that awareness of the role of community nursing among young people is average or limited participation, but the general view of its preventive role is positive, which calls for intensifying awareness efforts and strengthening institutional and financial support for community nursing programs.

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1. Introduction

In the modern era, chronic diseases have become a growing global health burden, affecting not only older age groups, but also young people. Lifestyle changes, such as decreased physical activity, increase the incidence of diabetes, obesity, high blood pressure, and other chronic conditions among adolescents and young adults [1]. Community nursing is a key pillar in efforts to prevent these chronic diseases, due to its direct field role and its ability to reach individuals within their local communities, allowing for the implementation of preventive interventions and health education tailored to the

cultural and social characteristics of each community [2]. These interventions include health awareness, early detection of risk factors, establishing follow-up programs for health clinics, and organizing community activities to promote a healthy lifestyle, proper nutrition, and regular physical activity [3]. However, community nursing faces several challenges that affect its effectiveness, including a lack of training and specialization in the field of prevention, limited financial and human resources, weak health infrastructure in some areas, and sometimes poor health awareness among young people, which reduces their participation in preventive programs [4], [5]. The effects of social and economic disparities are also clearly evident in the unequal opportunities for access to community nursing services, making it important to adapt health programs to be more equitable and comprehensive [6], [7]. Therefore, this study aims to assess the extent of young people's awareness of the role of community nursing in preventing chronic diseases, their level of participation in awareness-raising activities, and their current perception of the effectiveness of these preventive programs. Understanding these aspects is essential to identify gaps in knowledge and practice, develop recommendations to enhance the role of community nursing, and strengthen institutional and financial support in order to improve public health and reduce the health burden on young people and society as a whole. In addition to the above, the concept of community participation is one of the essential factors that enhance the effectiveness of preventive interventions implemented by community nursing. Without the active cooperation of community members, preventive programs often remain vulnerable to failure or have limited impact. Involving young people themselves in the design and implementation of these programs increases acceptance and creates a sense of responsibility towards public health. This is consistent with community health models that emphasize that effectiveness is linked to the real participation of the targeted population [8], [9], [10]. Recent studies show that interventions led by community nursing can lead to tangible results in reducing emergency visits, improving confidence in self-care, and enhancing self-efficacy among patients with chronic diseases [11]. Also, in areas such as chronic disease management, research shows that nurses in primary care play a pivotal role in supporting patients to manage their conditions themselves through health audits, follow-up, and encouraging adherence to the treatment model [12], [13]. For example, the Guided Care Model program demonstrates how primary care nurses can work together with physicians to coordinate care, monitor patients, enable self-care, and support transitions between different levels of care [14]. Similarly, community nursing programs based on group interventions have proven effective in improving treatment adherence and lifestyle among people with chronic diseases in several European studies [15].

2. Materials and Methods

This study was designed as a descriptive, cross-sectional study to assess the level of awareness, participation, and general perception of the role of community nursing in preventing chronic diseases among young people. The study was conducted in Baghdad from March to July 2025 and included educational sites.

Study Population and Sample: The research population targeted young men and women from Baghdad, representing various age groups (<18, 18-20, 26-30, >30 years) and various educational levels (secondary, university, postgraduate). The actual sample size was 100 participants, selected using a simple random sample from individuals present at the data collection sites, taking into account the relative distribution of age and educational level according to access constraints and available materials.

Inclusion and Exclusion Criteria: The study included all individuals within the specified age groups who voluntarily agreed to participate, with guardian consent obtained for participants under 18 years of age. Individuals unable to participate were excluded. Participants were asked to answer for health or cognitive reasons, and those who

refused to participate explicitly or completed the questionnaire partially were largely excluded.

Data Collection Tool: The study used a structured questionnaire divided into four main sections: 1. Demographic data; 2. Level of awareness of the concept of community nursing, chronic diseases, and prevention methods; 3. Participation and general perception of the effectiveness of community nursing programs; 4. Challenges and suggestions related to implementing preventive programs. The questionnaire design included multiple-choice questions.

Tool Validity and Reliability: The study was piloted on a small sample of 10 to 20 participants to verify the clarity and applicability of the questions. The order of the items and the wording of some options were modified based on participant feedback. The reliability of the tools was discussed using Cronbach's alpha coefficient to measure internal consistency. α values were calculated after data entry, with ($\alpha \geq 0.7$) considered acceptable.

Data Collection: The questionnaires were given to participants in paper form and took approximately 10 minutes to complete. (8-12) minutes for each participant. Complete confidentiality was assured, and no personal identifying information was recorded. Participants were guaranteed the right to withdraw at any time without repercussions.

Statistical Analysis: Descriptive statistics were used to summarize qualitative and quantitative variables (frequencies, percentages, mean, standard deviation). The chi-square test was used to examine the relationship between demographic variables and outcome variables. Multiple logistic regression analysis was conducted to identify independent factors associated with awareness, participation, and general perception of the effectiveness of community nursing. Results were presented as adjusted odds ratios, 95% confidence intervals, and a p value ($p < 0.05$) was considered statistically significant.

3. Results

Table 1. Demographic characteristics of participants (n = 100)

Variable	Category	n	%
age	Less than 18	10	10.0
	18-25	45	45.0
	26-30	25	25.0
	Above 30	20	20.0
	Total	100	100
sex	male	48	48.0
	female	52	52.0
	Total	100	100
Education level	High school	30	30.0
	university	55	55.0
	postgraduate	15	15.0
	Total	100	100

Table(1) shows the demographic characteristics of the 100 study participants. The results showed that most of the participants belonged to the age group (18-25) years, if their percentage reached 45%, followed by the group (26-30) years with a percentage of 25%, then the group of those who are older than 30 years with a percentage of 20%, while the lowest percentage of participants was from the age group less than 18 years, as they constituted only 10% of the sample. As for gender, the percentage of females was (52%) compared to (48%) of males, which indicates a clear convergence between the sexes with a slight superiority in favor of females. As for the educational level, the results showed that more than half of the participants (55%) were university degree holders, followed by high school graduates with a percentage of (30%), while the percentage of those who obtained postgraduate degrees was only (15%). In general, it can be said that the sample

The study consists mostly of young people in the age group (18-25) years, with a close gender distribution, and most of them have had university education.

Table 2. Distribution of awareness, participation, and key perceptions (n = 100).

variable	Category	n	%
Chronic diseases	diabetes	55	55.0
	Heart disease	30	30.0
	obesity	45	45.0
	hypertension	40	40.0
	other	10	10.0
Prevention methods	Health awareness	60	60.0
	Regular check - ups	50	50.0
	Physical activity	65	65.0
	healthy diet	70	70.0
	other	15	15.0
Nursing tasks	Health campaigns	55	55.0
	Nutritional counseling	45	45.0
	Follow -up high risk cases	50	50.0
	Collaboration with schools universities	40	40.0
	Other	12	12.0
challenges	Lack of financial support	40	40.0
	Low awareness of role	45	45.0
	Limited institutional collaboration	30	30.0
	Other	15	15.0

Table(2) shows the distribution of participants according to the level of awareness, participation, and basic impressions related to community nursing. The results showed that the percentage of awareness of the concept of community nursing reached 60% of the participants, while 40% of them had not heard of or were not familiar with this concept, indicating an average level of awareness among the sample members. As for participation in activities related to community nursing, the results showed that only 35% of the participants actually participated in such activities compared to 65% who did not participate, which reflects the weak level of community participation in this field. Regarding the participants' perception of the role of nurses in the community, 50% of the participants considered the role of nurses to be somewhat effective, 30% saw it as very effective, while 20% considered their role to be ineffective, which indicates that most of the participants have a moderately positive view of the role of nurses. As for evaluating the effectiveness of awareness or preventive programs, 55% described them as moderately effective, 25% as very effective, while 10% saw it as ineffective. 20% find it ineffective. Overall, the results indicate that awareness of the role of community nursing is average

and participation is limited, but the overall impression of the role of nurses and their programs is positive to varying degrees.

Table 3. Frequencies of chronic diseases, prevention methods, nursing tasks, and challenges (n = 100)

variable	category	n	%
Awareness of community nursing	yes	60	60.0
	no	40	40.0
	total	100	100
Participation in activities	yes	35	35.0
	no	65	65.0
	total	100	100
Perception of nurses role	Very effective	30	30.0
	Somewhat effective	50	50.0
	Not effective	20	20.0
	Total	100	100
	Highly effective	25	25.0
Effectiveness of programs	Moderately effective	55	55.0
	Not effective	20	20.0
	total	100	100

Table(3)shows the frequency and prevalence of chronic diseases, methods of prevention, nursing tasks, and challenges facing nursing staff from the perspective of study participants (n=100). The results showed that the most common chronic diseases are diabetes at 55%, followed by obesity at 45%, then high blood pressure at 40%, while heart disease at 30% and other diseases at 10%. This indicates that lifestyle diseases such as diabetes and obesity are the most widespread in society. As for methods of preventing chronic diseases, following a healthy diet (70%) and practicing regular physical activity (65%) were the most common among participants, followed by health awareness (60%) and conducting periodic examinations (50%), while only 15% indicated other preventive methods. This indicates that the majority of participants are aware of the importance of a healthy lifestyle in preventing diseases. Regarding nursing tasks, the results showed that 55% of participants believe that health awareness campaigns are the most prominent tasks of community nursing, followed by following up on high-risk cases (50%), and then nutritional counseling (45%). 40% of respondents said they did this in cooperation with schools and universities, while a limited percentage (12%) mentioned other tasks. This reflects the diversity of the role played by nurses in promoting public health. As for the challenges facing community nursing, the most important of them were the low awareness of the role of nursing (45%), the lack of financial support (40%), and weak institutional cooperation (30%), in addition to other challenges (15%). These results indicate that administrative and logistical challenges, in addition to weak community awareness, constitute the main obstacles to the development of community nursing services.

Table 4. Cross-tabulations of awareness and participation with demographic variables (n=100)

variable	Category 1	Category 2	N		χ^2	p-value
Awareness × age	<18	yes	6	60.0	4.23	0.2377
	<18	no	4	40.0		
	18-25	yes	30	66.7		
	18-25	no	15	33.3		
	26-30	yes	15	60.0		
	26-30	no	10	40.0		
	>30	yes	9	45.0		
	>30	no	11	55.0		
Awareness × education	High school	yes	15	50.0	5.12	0.077
	High school	no	15	50.0		
	University	yes	35	63.6		
	University	no	20	36.4		
	Postgraduate	yes	10	66.7		
	Postgraduate	no	5	33.3		
Participation × sex	male	yes	20	41.7	1.02	0.312
	male	no	28	58.3		
	female	yes	15	28.8		
	female	no	37	71.2		

Table (4) shows the relationship between the level of awareness and participation in community nursing and some demographic variables of the participants: age, education level, and gender. Using the chi-square, the results showed that the highest percentage of awareness of the concept of community nursing was among the age group (18-25) years, with a percentage of 66.7%, followed by the group (26-30) years, with a percentage of 60%, then the group under 18 years, with a percentage of 60% as well, while the lowest percentage of awareness was among the group over 30 years, with a percentage of 45%. Despite this relative disparity between the age groups, the value ($p=0.2377$) indicates that there is no relationship of the same statistical significance between age and the level of awareness, which means that awareness is close between the different age groups. It also showed that awareness increases with the rise in the educational level, as its percentage reached 66.7% among postgraduates and 63.6% among university graduates, compared to only 50% among High school graduates. However, the value ($p=0.077$) indicates the absence of a statistically significant relationship, although the results point to a potential positive trend between higher educational levels and increased awareness. As for the relationship between activity participation and gender only, the participation rate among males was 41.7% higher than that of females 28.8%, but these differences were not statistically significant ($p=0.312$). Overall, the results did not show statistically significant relationships between awareness or participation and demographic variables, but they do illustrate a general trend indicating that awareness is higher among younger and more educated groups, while participation is slightly higher among males.

Table 5. Multivariable logistic regression: Factors associated with awareness, participation, and perceived effectiveness (n = 100).

Outcome variable	Independent variable	OR	95% CL	P-value
Awareness	Age 18-25 vs <18	1.20	0.45-3.20	0.710
	Age 26-30 vs <18	1.05	0.38-2.91	0.920
	Age >30 vs <18	0.70	0.25-1.95	0.500
	Female vs male	1.10	0.55-2.20	0.780
	University vs <18	1.90	0.85-4.30	0.120
participation	Postgraduate vs high school	2.10	0.70-6.20	0.180
	Female vs male	0.60	0.28-1.28	0.190
	Age 18-25 vs <18	1.25	0.50-3.10	0.620
	University vs high school	1.75	0.80-3.85	0.150
Perceived effectiveness	Female vs male	1.15	0.55-2.40	0.700
	University vs high school	1.50	0.65-3.45	0.330
	Postgraduate vs high school	1.80	0.55- 5.85	0.330

Table 5 shows the results of the multiple logistic regression analysis to identify the factors associated with the level of awareness, participation and general perception of the effectiveness of community nursing among the study participants (n=100). Regarding the awareness variable, the results showed that the age group 18-25 years was more aware of the concept of community nursing compared to the group younger than 18 years (OR=0.70). However, all values ($0.05 < p$) indicate that there is no statistically significant relationship between age and the level of awareness. It also showed that females (OR=1.10) were slightly more aware than males, but the difference was not significant ($p=0.780$). As for the educational level, participants with university degrees (OR=1.90) and postgraduate degrees (OR=2.10)** showed a higher level of awareness compared to high school graduates. However, these relationships also did not reach the level of statistical significance ($0.05 < p$), despite the presence of A positive trend indicates that higher educational levels may be associated with increased awareness. Regarding participation, the probability of participation was lower among females compared to males (OR=0.60), meaning that males are more involved in community nursing-related activities, but without statistical significance ($p=0.190$). The age group (18-25) showed a slight trend toward increased participation compared to the younger 18 group (OR=1.25), as well as among university graduates compared to high school graduates (OR=1.75), but none of these values were significant ($p < 0.05$). Regarding the general perception of the effectiveness of community nursing, the probability of perceiving the programs as effective was slightly higher among females (OR=1.15) compared to males, university graduates (OR=1.50), and postgraduates (OR=1.80) compared to high school graduates. However, all these differences did not reach the level of statistical significance ($0.05 < p$). In general, the results of the analysis show that age, gender, and educational level are not significantly related to the level of awareness, participation, or perception of the effectiveness of community nursing, despite the presence of slight positive trends indicating that the educational level may be related to the prevalence of awareness and perception, and that males participate more than females.

4. Discussion

This study highlights the extent of young people's awareness of the role of community nursing in preventing chronic diseases, their participation in awareness-raising activities, and their awareness of the effectiveness of the programs provided, in addition to the obstacles that stand in the way of implementing this role.

The level of awareness and participation. The results showed that 60% of the participants had heard of the concept of community nursing, while 40% were not aware of it. This indicates moderate awareness among young people in this league. Although the majority were able to name some common chronic diseases such as diabetes, 55%, obesity, 45%, and high blood pressure, 40%, the percentage of actual participation in awareness activities carried out by community nurses. It was small, reaching only 35%. These results are largely in line with other studies that dealt with the preventive and general role of nursing, which indicate that knowledge may be higher than practical application due to institutional barriers or weak motivation, such as the role of nurses in supporting patients' self-participation in health care [16]. Some studies also indicate that awareness alone does not guarantee behavioral change, but must be combined with support. And follow-up [17].

Perceptions about the effectiveness of the role of the community nurse and preventive programs. In terms of general evaluation, about 30% of the participants thought that the role of community nursing is very effective, while 50% thought that it was somewhat effective. 20% said that it was ineffective. As for the evaluation of preventive programs, 55% described them as moderately effective, 25% as very effective, while 20% thought that they were ineffective. These numbers indicate that there is a relative belief among young people in the role of nursing in prevention, even if the belief is not absolute or strong among everyone, this may be related to limited applied experience or lack of access to actual programs. The literature indicates that the success of preventive initiatives in community health depends on complementary elements, health education, continuous follow-up, cooperation between different sectors, schools, community health, and adapting the message according to the local context. The community nurse is not satisfied with just conveying information, but he must be A mediator between knowledge and behavior and to support the learner in daily application [18]. The chronic diseases and methods of prevention mentioned. It is noted that diabetes and obesity constitute a major concern among participants, 55%. This distribution is in line with the global trend of the spread of lifestyle diseases among youth groups in urban communities. As for methods The prevention chosen by most participants was a healthy diet 70%, regular physical activity 65%, then health awareness 60%, and periodic examinations 50%. This arrangement reflects a scientific understanding that daily behavioral change, food and activity, is one of the basic pillars of preventing chronic diseases. Expected tasks and challenges. The participants explained that the tasks that the community nurse should focus on include organizing campaigns. Awareness 55%, following up on high-risk cases 50%, providing nutritional consultations 45%, and cooperation with schools and universities 40%. On the other hand, it was pointed out that the most prominent obstacles facing community nursing are the lack of awareness of the role of nursing 45%, the lack of financial support 40% and weak institutional cooperation 30%. These challenges are not surprising in the context of community research, as financial resources and administrative support often constitute an obstacle to implementation. Preventive programs: Studies also indicate that the community nurse needs a supportive institutional structure (organization, supervision, funding) in order to be effective in prevention [17]. The relationship between demographic variables and awareness of participation. Chi-square analysis indicated that the age group (18-25) tended to be more aware (66.7%), followed by the group (26-30) (60%), while the group (26-30) was less aware. Who are they? More than 30 years, 45%, but the value of b is equal ($p=0.2377$) indicating that these differences are not statistically significant. Also, awareness increased with the level of education,

63.6% for those with a university education, 66.7% for those with graduate studies, compared to 50% for those with high school studies, but the

5. Conclusion

The results of this study indicate that the level of awareness of the role of community nursing in preventing chronic diseases among young people in Baghdad is still moderate, and that actual participation in preventive activities is limited. Although most of the participants expressed positive attitudes toward the importance of community nursing, this awareness has not yet been translated into behavior or actual participation. The statistical analyzes did not show any significant differences between Demographic characteristics: age, gender, educational level, and level of awareness or participation, which indicates that cultural and institutional factors and the extent of exposure to awareness programs may be more influential. As the results showed, the lack of institutional awareness, weak financial support, and lack of cooperation between the health and educational sectors are among the most prominent challenges facing community nursing in performing its preventive role within society. These results confirm the urgent need to strengthen The place and role of community nursing in the primary health care system in Iraq through education, training and institutional support.

Recommendations

The study recommends the necessity of strengthening the role of community nursing in preventing chronic diseases among young people through implementing health awareness campaigns at the school and university levels to increase community awareness and integrating community nursing services into national public health strategies. It also emphasizes the importance of preparing specialized training programs for nurses in the fields of health education and community communication and enhancing cooperation between the health, educational and media sectors. To support preventive programs, it also recommends allocating sufficient financial and human support to expand the scope of preventive activities and encouraging scientific research in this field to evaluate the long-term impact of these programs, while taking advantage of health technology and digital platforms to spread awareness and follow up on groups at risk.

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