ORIGINAL ARTICLE

CONTENTS

# Nurses' attitudes towards mental illness and home health care quality as a means of managing psychiatric patients' relapses and re-admissions: a quasi -experimental study

**Amal Ibrahim Khalil[1,2], Manni Alharbi[1,2], Reem Alsulami[1,2], Manar Alotaibi[1,2]**

[1]COLLEGE OF NURSING, KING SAUD BIN ABDULAZIZ UNIVERSITY FOR HEALTH SCIENCES,JEDDAH, SAUDI ARABIA

[2]KING ABDULLAH INTERNATIONAL MEDICAL RESEARCH CENTER, JEDDAH, SAUDI ARABIA

## ABSTRACT

**Aim:** This study aims to assess the impact of an educational intervention on nurses' knowledge and attitudes regarding home health care, relapse management, and psychiatric hospital admissions.

**Materials and Methods**: A quasi-experimental study was conducted with 106 nurses at Erada for Mental Health and Addiction. Standardized assessment tools, including a knowledge scale for home health care quality and a mental illness devaluation scale, were used.

**Results:** Most participants were female 78.4% with a bachelor's degree 77%, and the average age was 2.06±.954. The analysis revealed a significant improvement in knowledge levels post-intervention P<0.000, however, there was a slight non-significant increase in devaluation scale scores after the intervention (pre-24.55±2.96, post-25.18±3.45).

**Conclusions:** Targeted interventions to enhance nurses' knowledge of home health care quality and promote positive attitudes toward mental illnesses can lead to improved patient care, potentially reducing relapses and readmissions among psychiatric patients. Future research should explore the long-term impact and sustainability of such interventions in mental health care settings**.**

**KEY WORDS:** nursing, mental health, attitudes, home health care, psychiatric patients, readmissions, stigma reduction

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## INTRODUCTION

Home health care (HHC) is integral to modern healthcare systems, providing cost-effective care that eases hospital strain and supports patients, particularly those unable to access in-person care due to chronic conditions or mental health issues [1]. Mental health disorders are especially prevalent in young adults, with barriers like stigma, under-reporting, and societal influences contributing to underutilization of mental health services [2]. These disorders impact patients' cognitive, emotional, and physical quality of life [2]. In Saudi Arabia, HHC programs have evolved with government support to address various health needs, starting with a cancer-focused program at King Faisal Specialized Hospital in 1991 and expanding to a national initiative by 2008 [3]. These services are provided by multidisciplinary teams, including psychiatric nurses, who offer support and promote patient independence [4]. Mental health disorders have escalated post-COVID-19, highlighting the need for long-term care models. The global burden of mental disorders, contributing 7% to disability-adjusted life years (DALYs), underscores the necessity of structured, quality HHC for serious mental illness (SMI) patients [5]. Research has shown that mental illness-related stigma within healthcare systems and among providers impedes patient recovery. Stigmatizing attitudes from healthcare providers can result in poor care management and social marginalization [6, 7]. Nurses, especially those trained in psychiatric care, are pivotal in addressing this issue. Studies indicate that advanced education and specialized training in psychiatric nursing positively influence attitudes towards mental health [8], although factors such as cultural, demographic, and religious beliefs may also shape these attitudes [9]. Research from other countries underscores the potential of HHC in enhancing patient quality of life. Studies from Brazil and China found HHC programs improved overall quality of life and patient satisfaction [9]. Yet, limited studies in Saudi Arabia have examined the impact of HHC programs on mental health patient outcomes. Only one study in

Riyadh documented improvements in patient quality of life following HHC interventions in government hospitals [10, 11]. For mental health patients in Saudi Arabia, HHC usually begins post-hospitalization, with regular home visits by multidisciplinary teams. Best practices suggest that psychiatric nurses providing home care need substantial mental health training, ideally at the master's level, to deliver comprehensive services like cognitive-behavioral therapy, symptom management, and family education [12, 13]. Despite this, there are gaps in standardized training and the extent of skills necessary for effective home-based psychiatric care.

### SIGNIFICANCE OF THE STUDY

Records indicate that nurses at the Erada Institution for Mental Health and Addiction lack the qualifications and licensure required for registered psychiatric nursing. While some hold associate or bachelor's degrees, few possess master's degrees, and most are involved in administrative roles rather than direct patient care. At Erada, the selection of home health care (HHC) patients is conducted by rotating staff, yet limited research has examined the hospital's HHC program since its introduction three years ago. Studies on attitudes toward mental illness generally focus on the public or medical students, with minimal insight into the attitudes of primary healthcare providers (PHCs) towards mental illness in our cultural context. An educational intervention for nurses could help enhance their understanding of quality HHC services and foster positive attitudes toward psychiatric patients and their families. This intervention aims to improve nurses' knowledge and attitudes, ultimately reducing relapse and readmission rates for psychiatric patients at the Erada Psychiatric and Addiction Institution, part of the Ministry of Health (MOH) in Jeddah, Saudi Arabia.

## AIM

The study aims to assess the impact of an educational intervention on improving nurses' attitudes towards psychiatric patients and enhancing their knowledge of home health care for managing relapses and readmissions at the Erada Complex for Mental Health and Addiction, affiliated with the Ministry of Health in Jeddah, Saudi Arabia.

The study addresses three primary research questions:

1. What are the participants' knowledge and attitudes toward home health care quality before and after the intervention?
2. How do nursing staff's knowledge and attitudes influence their capability to manage patient relapses and readmissions?
3. What associations exist between participants' demographic characteristics and their knowledge and attitudes in both pre- and post-assessment phases?

### HYPOTHESIS

- Null Hypothesis ($H_0$): The educational intervention does not improve nurses' attitudes and knowledge.
- Alternative Hypothesis ($H_1$): The educational intervention significantly impacts nurses' attitudes towards psychiatric patients and their knowledge of home health care.

## MATERIALS AND METHODS

### DESIGN

A quasi-experimental design with pre-test and post-test assessments, time series analysis, and a nonequivalent control group was used to evaluate the intervention's impact without randomization. This approach is common in educational and healthcare research where random assignment is impractical, allowing for tracking changes over time and comparing outcomes across groups with similar characteristics [14, 15].

### SETTING AND PARTICIPANTS

The study took place at the Erada Complex for Mental Health and Addiction in Jeddah, Saudi Arabia. A convenience sample of 106 nurses (from a pool of 145) with experience in home health care visits and a willingness to participate was selected. The hospital has 200 nurses across inpatient, outpatient, and emergency units. To minimize selection bias, participant matching, and a nonequivalent control group were employed. Pre- and post-assessments allowed for within-subject comparisons, and assessors were blinded. Statistical tests, including t-tests and chi-square tests, were used to control for potential biases and ensure that the effects observed were due to the intervention [16].

### SAMPLE SIZE CALCULATION

The sample size was determined using the Roe-soft software program, considering a 95% confidence level and a margin of error of ±5%. With 145 nurses having experience in home health care visits, a minimum sample size of 106 was calculated based on a response distribution of approximately 50% using a convenient purposive sampling method.

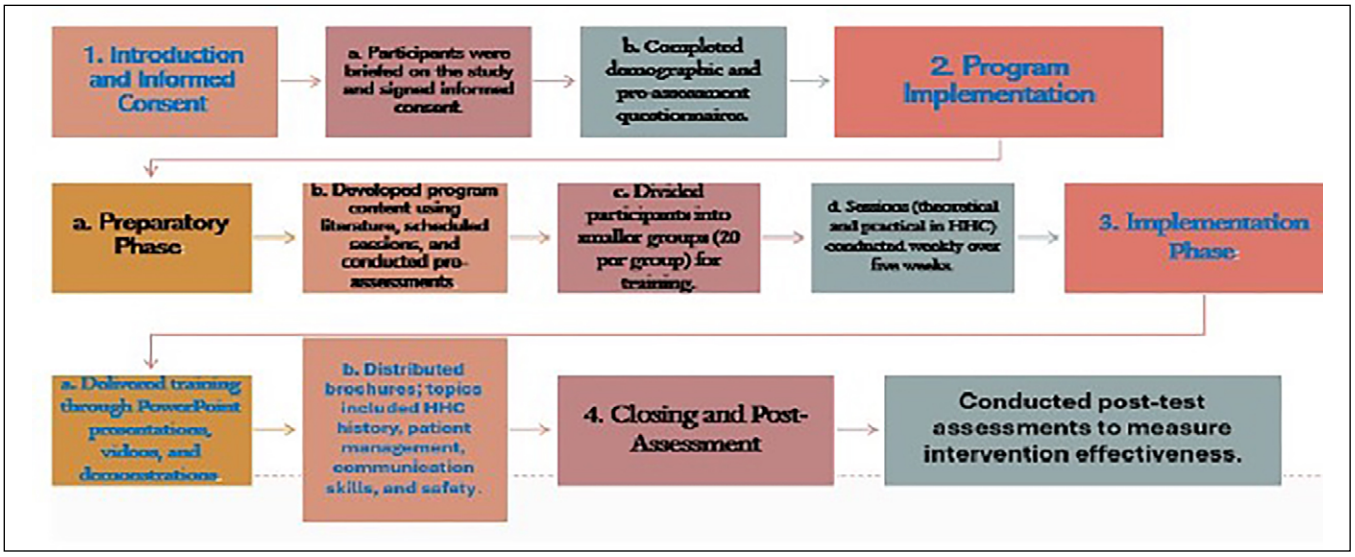


**Fig. 1.** Program phases summary flowchart.

## TOOLS OF STUDY

1. **Demographic and Personal Data**: This tool collected basic information about participants, such as their gender, age, years of experience, previous attendance at Home Health Care (HHC) workshops, how they were selected to work in HHC services, and their educational background.
2. **Perceived Discrimination and Devaluation (PDD) Scale**: The PDD scale, created by sociologist Bruce G. Link [17] assesses the perceived devaluation and discrimination faced by individuals with psychiatric disorders. It includes 12 items that measure two subdomains:

*Perceived devaluation* (expectations about how others view individuals with mental disorders).

*Perceived discrimination* (expectations about how others will treat individuals with mental disorders). The scale uses a five-point response format and has been validated in previous studies. The Chinese version of the PDD was used in this study and includes a response option called "not sure." The items were categorized into three levels of agreement: "completely agree," "mostly agree," and "completely disagree."

3. **Knowledge about Home Health Care (HHC) Scale**: This self-reporting questionnaire, developed by Almoajel et al. [6], evaluates the knowledge of home healthcare professionals on various aspects of HHC. It includes questions on 11 dimensions such as satisfaction, perception of patients and institutions, training, knowledge, continuity, access, complaints, working hours, respect, incentives, standards, and effectiveness. The validity of the instrument was confirmed by experts from various sectors as per the main developer's evaluation.

## DATA COLLECTION PROCEDURE

The study received ethical approval from the CONJ Research Unit, KAIMRC, IRB, and the Manager of the Erada Mental Health and Addiction Complex, Ministry of Health, Jeddah, KSA. Informed consent was obtained from each participant after providing detailed information about the study's purpose.

## DATA COLLECTION PHASES

Data collection occurred in three main phases as it is shown by flowchart (Fig.1) as following:

**Introduction and Informed Consent**: After study approval, participants were contacted and asked to complete a demographic questionnaire. They were provided an overview of the study and required to sign an informed consent form. Participants also completed pre-assessment questionnaires (pre-test) that included demographic data, perceived discrimination (PDD), and knowledge of home healthcare (HHC).

## IMPLEMENTATION OF THE PROGRAM

**Preparatory Phase**: The program's content was developed based on relevant literature. The planning phase included creating a timetable for strategies, teaching methods, and participant assignments. Pre-test assessments were conducted to evaluate participants before the program began. Participants were divided into smaller groups of 20 individuals for effective training. The training consisted of two main sessions: a theoretical session and a practical session on HHC, each lasting two hours. The sessions were conducted

**Table 1.** Distribution of the sample studied according to demographic background (N = 106)

| | | Gender | | | |
|---|---|---|---|---|---|
| | | Female | | Male | |
| | | Count | Column N % | Count | Column N % |
| Age | less than 25 | 39 | 52.7% | 0 | 0.0% |
| | from 25 to 35 | 16 | 21.6% | 12 | 37.5% |
| | from 36 to 45 | 15 | 20.3% | 18 | 56.3% |
| | from 46 to 55 | 4 | 5.4% | 2 | 6.3% |
| Total mean =2.06 standard deviation 0.954 | | | | | |
| Education level | Diploma | 15 | 20.3% | 18 | 56.3% |
| | Bachelor | 57 | 77.0% | 11 | 34.4% |
| | Master | 2 | 2.7% | 3 | 9.4% |
| | PhD | 0 | 0.0% | 0 | 0.0% |
| Experience in Home Health Care (HCC) | no experience | 49 | 66.2% | 10 | 31.3% |
| | from 1 to 3 | 10 | 13.5% | 1 | 3.1% |
| | from 4 to 10 | 1 | 1.4% | 11 | 34.4% |
| | more than 10 | 14 | 18.9% | 10 | 31.3% |
| Previous HHC workshops | No | 43 | 58.1% | 16 | 50.0% |
| | Yes | 31 | 41.9% | 16 | 50.0% |
| How did you elect to work at HHC Services? | voluntary | 10 | 13.5% | 5 | 15.6% |
| | elected by co-worker | 3 | 4.1% | 8 | 25.0% |
| | elected by the hospital manager | 2 | 2.7% | 4 | 12.5% |
| | others | 29 | 39.2% | 15 | 46.9% |
| | do not work at the hospital | 30 | 40.5% | 0 | 0.0% |
| Do you think that HHC visits impact reducing the number of readmissions and relapses in psychiatric patients? | No | 3 | 4.1% | 2 | 6.3% |
| | Yes | 71 | 95.9% | 30 | 93.8% |
| As a nurse, have you been harmed or assaulted by the psychiatric patient or his family during an HHC visit? | No | 66 | 89.2% | 23 | 71.9% |
| | Yes | 8 | 10.8% | 9 | 28.1% |
| Did you miss any of the patients' visits? | No | 59 | 79.7% | 21 | 65.6% |
| | Yes | 15 | 20.3% | 11 | 34.4% |
| What do you think is the reason for missing visits? | 0 | 2 | 2.7% | 0 | 0.0% |
| | Poor in organization | 23 | 31.1% | 8 | 25.0% |
| | There is no integrated team | 13 | 17.6% | 7 | 21.9% |
| | Lacl of transportation | 8 | 10.8% | 0 | 0.0% |
| | Busy medical team | 6 | 8.1% | 5 | 15.6% |
| | Others | 22 | 29.7% | 12 | 37.5% |
| Does your hospital have accreditation for HHC from an international organization? | No | 59 | 79.7% | 24 | 75.0% |
| | Yes | 15 | 20.3% | 8 | 25.0% |

during working hours, with one group attending per day. Training was repeated weekly over five weeks to accommodate all participants.

**Implementation Phase**: Various instructional methods were used, including PowerPoint presentations, brainstorming sessions, demonstrations, and examples.

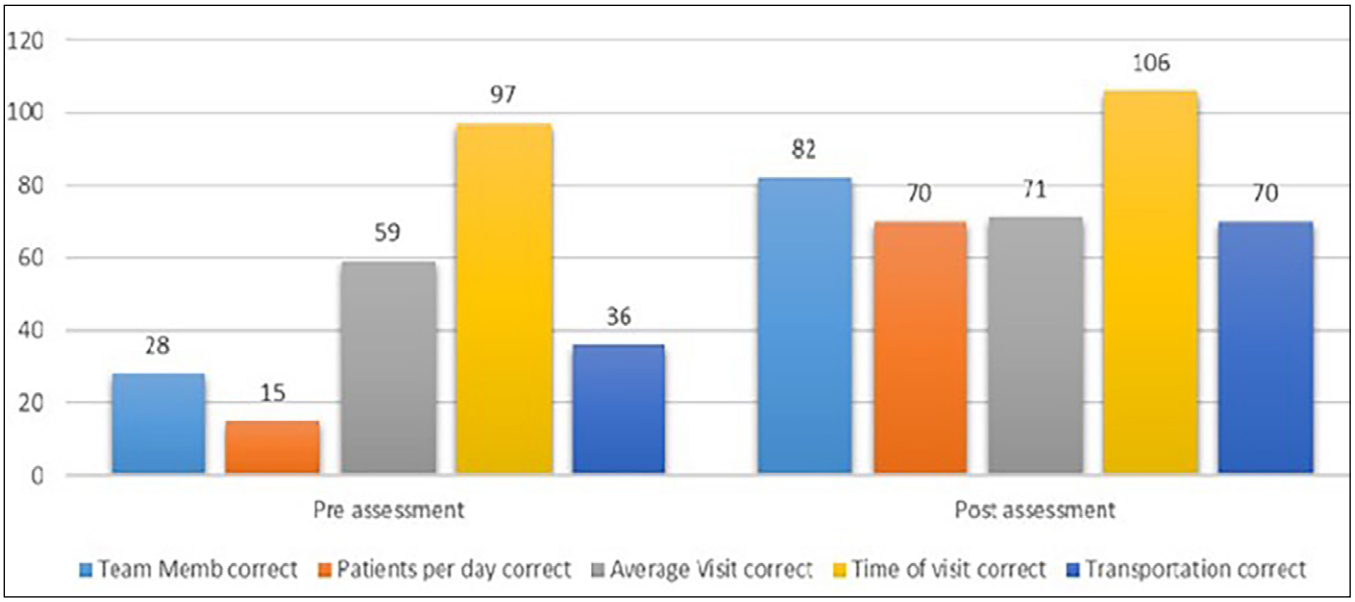


**Fig. 2.** Comparison between knowledge of the participants in pre / post assessment (N=106).

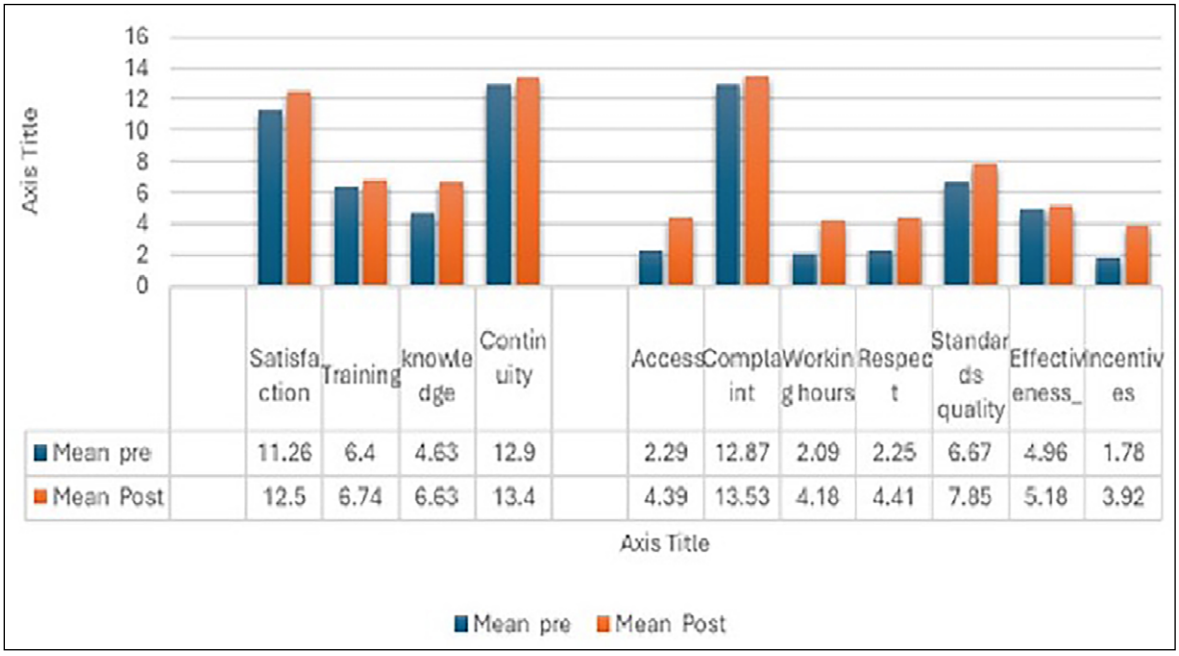


**Fig. 3.** Comparison among target participant in pre / post assessment of subdomains of knowledge of home health care quality standards scale (N=106).

Media, videos, and brochures were incorporated into the sessions. Participants received brochures containing training materials, and each session was followed by a summary of the skills learned. Topics covered in the program included the history of home health care, its role in managing relapse and readmission of mentally ill patients, communication skills with families and patients, assessing mental status, psychosocial and environmental hazards, patient rights, and maintaining safety.

**Closing and Post-Assessment Measurement**: After the intervention, participants completed a post-test to evaluate the effectiveness of the program using the same research instruments.

## DATA MANAGEMENT AND ANALYSIS PLAN

The data analysis employed SPSS version 24. Descriptive statistics, including mean and standard deviation, summarized inventory and scale variables. A paired t-test assessed score changes before and after interventions, evaluating the interventions' impact. Cohen's d effect sizes contextualized observed differences. Additionally, ANOVA was conducted to examine score variations across demographic subgroups, with post-hoc tests identifying significant differences. Pearson's correlation was used to explore relationships between scores and demographic traits, with statistical significance set at $P < 0.05$. Effect sizes provided further insight into the magnitude of the findings.

**Table 2.** Comparison between knowledge about the standard quality of HHC and the perceived devalued attitude towards mental illness among study participants before / after the evaluation (N=106)

| variable | N | M±SD | Paired Differences | Std. Error Mean | 95% Confidence Interval of the Difference | | t-test | One side pair | 2-sided pair |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lower | Upper | | | |
| Pre PPD | 106 | 24.54±2.9 | -.63±4.5 | .446 | -1.5 | .252 | -1.4 | .080 | .159 |
| Post PPD | 106 | 25.17±3.45 | | | | | | | |
| Pre knowledge | 106 | 2.31±1.00 | -1.04±1.28 | 0.125 | -1.29 | -0.800 | -8.4 | <0.001 | <0.001 |
| Post K | 106 | 3.36±.938 | | | | | | | |

**Table 3.** Correlation between before and after perceived devaluation and discrimination scale and knowledge of the quality of home health care standards among study participants (N= 106)

| Correlations | | | | | |
|---|---|---|---|---|---|
| | | Pre-Pdd | post_pdd | PRE_HHCQ | POST_HCCQ |
| pre perceived devaluation | Pearson Correlation | 1 | -.016 | .283** | -.161 |
| | Sig. (2-tailed) | | .869 | .003 | .099 |
| | N | 106 | 106 | 106 | 106 |
| post perceived devaluation | Pearson Correlation | -.016 | 1 | .072 | .060 |
| | Sig. (2-tailed) | .869 | | .464 | .544 |
| | N | 106 | 106 | 106 | 106 |
| PRE knowledge HHCQ | Pearson Correlation | .283** | .072 | 1 | -.097 |
| | Sig. (2-tailed) | .003 | .464 | | .321 |
| | N | 106 | 106 | 107 | 106 |
| POST knowledge HCCQ | Pearson Correlation | -.161 | .060 | -.097 | 1 |
| | Sig. (2-tailed) | .099 | .544 | .321 | |
| | N | 106 | 106 | 106 | 106 |

Notes: ** – the correlation is significant at the 0.01 level (2-tailed).

## RESULTS

The sociodemographic profile of individuals working in home health care (HHC) services is summarized in Table 1. The data shows that most participants are female, accounting for 95.9% of the sample, with males being less represented. Most participants are under 25 years old, with the largest percentage falling within the 36 to 45 age group. In terms of education, the majority hold bachelor's degrees (77.0%), followed by those with a Diploma (20.3%). Individuals with master's or Ph.D. degrees are fewer in number. Regarding experience in HHC, a significant percentage have no prior experience (66.2%), while experienced individuals typically have over 10 years in the field. Attendance at previous HHC workshops is evenly split between attendees and non-attendees. Reasons for missed visits include issues such as poor organization (31.1%), lack of an integrated team (17.6%), and other factors like a busy medical team and transportation challenges. The majority strongly believe that HHC visits have a positive impact on reducing readmissions and relapses (95.9%). In terms of safety, most participants report not experiencing harm or assault during HHC visits (89.2%), although a notable percentage (10.8%) have encountered such incidents. Additionally, a significant proportion (20.3%) of respondents admit to missing patient visits.

The bar graph shows the differences in incorrect responses regarding basic knowledge of home health care before and after assessments (Fig.2). Significant variations are evident in key knowledge areas such as team members (28 before, 82 after), daily patient visits (15 before, 70 after), average visit count (59 before, 71 after), correct timing for patient visits (97 before, 106 after), and type of transportation (36 before, 70 after).

Table 2 compares the scores of participants before and after assessments regarding their understanding of the standard quality of home health care (HHC) and their attitude towards mental illnesses (Tabl.2). The mean score for perceived devalued attitude (pre-PPD) in the pre-assessment is 24.54±2.9, which slightly decreases to 25.17±3.45 in the post-assessment (post-

**Table 4.** Correlation between Demographic Background with Perceived Discrimination and Devaluation Scale (PDD)

| | | Pre-assessment | | | Post-assessment | | |
|---|---|---|---|---|---|---|---|
| | | Mean Square | F | Sig. | Mean Square | F | Sig. |
| Gender | Between Groups | .253 | 1.229 | .266 | .318 | 1.650 | .069 |
| | Within Groups | .206 | | | .193 | | |
| Age | Between Groups | 1.063 | 1.201 | .286 | .931 | 1.027 | .438 |
| | Within Groups | .886 | | | .907 | | |
| Qualifications | Between Groups | .540 | 2.157 | .014 | .365 | 1.315 | .202 |
| | Within Groups | .250 | | | .277 | | |
| Experience years | Between Groups | 1.971 | 1.290 | .225 | 1.989 | 1.314 | .203 |
| | Within Groups | 1.527 | | | 1.513 | | |
| Previous workshop | Between Groups | .377 | 1.657 | .075 | .228 | .902 | .573 |
| | Within Groups | .228 | | | .253 | | |
| Choice of services | Between Groups | 2.267 | 1.247 | .253 | 1.565 | .805 | .683 |
| | Within Groups | 1.817 | | | 1.943 | | |
| Effect relapses | Between Groups | .060 | 1.385 | .172 | .053 | 1.215 | .270 |
| | Within Groups | .043 | | | .044 | | |
| Exposed to assault | Between Groups | .132 | .963 | .500 | .235 | 2.012 | .019 |
| | Within Groups | .137 | | | .117 | | |
| Describe the assault | Between Groups | .263 | 1.100 | .368 | .307 | 1.330 | .194 |
| | Within Groups | .240 | | | .231 | | |
| Missing visit | Between Groups | .194 | 1.045 | .418 | .244 | 1.389 | .161 |
| | Within Groups | .186 | | | .176 | | |
| Reason for missing the visit | Between Groups | 1.889 | .607 | .862 | 2.628 | .877 | .602 |
| | Within Groups | 3.110 | | | 2.995 | | |
| Accreditation | Between Groups | .090 | .484 | .943 | .177 | 1.042 | .423 |
| | Within Groups | .185 | | | .170 | | |

PPD). However, this difference is not statistically significant (t (105) = -1.4, p = 0.080). In contrast, there is a significant improvement in knowledge scores, with participants scoring 2.31±1.00 in the pre-assessment (pre-knowledge) and 3.36±0.938 in the post-assessment (post-knowledge). The paired difference is -1.04±1.28 (t (105) = -8.4, p < 0.001).

The bar graph compares average scores for pre- and post-assessments in different subdomains of the Knowledge of Home Health Care Quality Standards Scale (Fig.3). Overall, there was an improvement in all subdomains after the evaluation, with higher average scores in the post-assessment. The satisfaction subdomain consistently had the highest average scores, indicating a high level of participant satisfaction with home healthcare quality standards (M = 11.26 in pre-assessment, increasing to 12.5 in the post-assessment). Conversely, the Access/Complaint subdomain consistently had the lowest average scores, suggesting limited participant access or awareness of complaint mechanisms (2.29 in pre-assessment, rising to 4.39 after intervention). The most significant difference between pre- and post-assessments was observed in the effectiveness/incentive subdomain (4.96 in pre-assessment compared to 5.18 in the post; 1.78 in pre-assessment compared to 3.92 in the post), indicating a substantial increase in knowledge in this area.

Table 3 shows the Pearson correlation coefficients between variables: pre-assessment perceived devaluation (Pre PDD), post-assessment perceived devaluation (Post PDD), pre-assessment knowledge HHCQ (PRE_HHCQ), and post-assessment knowledge HCCQ (POST_HCCQ). A positive correlation exists between pre-assessment perceived devaluation and pre-assessment knowledge HHCQ (r = 0.283, p = 0.003), indicating higher devaluation is linked to greater pre-assessment knowledge. However, a negative correlation is seen between pre-assessment perceived devaluation and post-assessment knowledge HCCQ (r = -0.161, p = 0.099), suggesting that as devaluation increases, post-assessment knowledge tends to decrease, though not significantly at the 0.05

**Table 5.** Correlation between Demographic Background with Home Healthcare Quality Dimensions Scale

| | | Pre-assessment HHQD | | | Post-assessment HHQD | | |
|---|---|---|---|---|---|---|---|
| | | **Mean Square** | **F** | **Sig.** | **Mean Square** | **F** | **Sig.** |
| Gender | Between Groups | .489 | 2.460 | .038 | 0.265 | 1.426 | .103 |
| | Within Groups | .199 | | | 0.186 | | |
| Age | Between Groups | 3.152 | 3.945 | .003 | 1.258 | 1.722 | .027 |
| | Within Groups | .799 | | | 0.73 | | |
| Qualifications | Between Groups | .085 | .281 | .923 | 0.353 | 1.362 | .135 |
| | Within Groups | .302 | | | 0.259 | | |
| Experience years | Between Groups | 2.857 | 1.871 | .106 | 2.000 | 1.453 | .092 |
| | Within Groups | 1.527 | | | 1.377 | | |
| Previous workshop | Between Groups | .534 | 2.275 | .053 | 0.226 | 0.865 | .678 |
| | Within Groups | .235 | | | 0.261 | | |
| Choice of services | Between Groups | 5.687 | 3.363 | .008 | 1.720 | 0.875 | .664 |
| | Within Groups | 1.691 | | | 1.966 | | |
| Effect relapses | Between Groups | .066 | 1.496 | .198 | 0.056 | 1.404 | .133 |
| | Within Groups | .044 | | | 0.040 | | |
| Exposed to assault | Between Groups | .178 | 1.332 | .257 | 0.203 | 2.001 | .007 |
| | Within Groups | .134 | | | 0.101 | | |
| Describe the assault | Between Groups | .330 | 1.383 | .237 | 0.277 | 1.229 | .229 |
| | Within Groups | .239 | | | 0.225 | | |
| Missing visit | Between Groups | .262 | 1.430 | .220 | 0.163 | .820 | .739 |
| | Within Groups | .183 | | | 0.199 | | |
| Reason for missing the visit | Between Groups | 1.801 | .602 | .699 | 2.45 | .771 | .801 |
| | Within Groups | 2.992 | | | 3.18 | | |
| Accreditation | Between Groups | .209 | 1.229 | .301 | 0.173 | 1.015 | .468 |
| | Within Groups | .170 | | | 0.171 | | |

level. There are no significant correlations between post-assessment perceived devaluation and knowledge assessments (Table 3).

Table 4 displays the results of an analysis of variance (ANOVA) comparing pre-assessment and post-assessment data for various variables. In the pre-assessment, a significant difference in group means was observed based on qualifications ($p = 0.014$), but not on factors such as sex, age, years of experience, previous workshop attendance, choice of services, effect of relapses, exposure to assault, description of the assault, missing visit occurrences, reasons for missing visits, or accreditation (Table 4).

In the post-assessment, a significant difference in group means was found based on exposure to assault ($p = 0.019$), while factors like gender, age, qualifications, years of experience, previous workshop attendance, choice of services, effect of relapses, description of the assault, missing visit occurrences, reasons for missing visits, or accreditation did not show significant differences.

Furthermore, no statistically significant interactions were observed between any of these factors in the pre-assessment or post-assessment.

Table 5 shows correlations between demographic variables and Home Healthcare Quality Dimensions scores before and after assessment. Gender was correlated with pre-assessment scores but not post-assessment. Age was correlated in both phases. Service choice was correlated in the pre-assessment only. Exposure to assault was correlated with post-assessment scores. Other variables did not show significant correlations with HHQD scores (Table 5).

## DISCUSSION

Home healthcare services in Saudi Arabia are expanding due to the aging population and rising chronic mental health disorders, though quality varies across institutions. This study aimed to evaluate nurses' knowledge and attitudes toward home healthcare services, partic-

ularly for managing psychiatric patients, and to explore factors that could help reduce relapse rates and hospital readmissions. The intervention program showed improvements in nurses' knowledge and attitudes, which could lead to better patient care and increased safety. This finding aligns with previous studies that highlight the challenges and skills needed by nurses in home healthcare settings. For instance, Andersson et al. [18] emphasized the need for nurses to be attentive, flexible, and continually supported in home care environments. However, Matarazzo et al., [19], found that intensive home therapy did not significantly reduce hospital days for psychiatric patients, while some patients preferred hospitalization. This suggests that there are limitations in the implementation of home-based psychiatric care, including resource constraints and lack of coordination, as noted by study [20]. Cornelis et al. [21] examined the impact of intensive home therapy (IHT) versus standard care for patients in severe psychiatric crises, finding that some patients preferred hospitalization and that IHT did not significantly reduce hospital days. Siqeca et al. [22] conducted a study on the feasibility of home-based psychiatric palliative care, reporting that some patients and families opted out due to resource limitations, lack of coordination, and teamwork issues among providers. In this study, there was no notable shift in nurses' perceptions pre- and post-assessment. Similarly, Pintar Babi et al. [23] found that nurses' caring and positive attitudes toward young adults with non-suicidal self-injury (NSSI) remained consistent across various settings and educational backgrounds. The study further explored the complex interplay between knowledge and perceived devaluation. A positive correlation was observed between pre-assessment knowledge and perceived devaluation, which changed to a negative correlation post-assessment, indicating that knowledge may diminish as perceived devaluation increases. Additionally, demographic factors influenced perceived discrimination and devaluation scores (PDD). Post-assessment results aligned with McRae et al.'s [24] findings, showing a significant association between PDD scores and exposure to assault among mental health practitioners, suggesting that experiences of assault heighten perceived discrimination. Arsat et al. [25] noted that qualifications were initially linked to PDD scores, indicating that educational background initially influences these perceptions. Certain demographic factors do not show a statistically significant relationship with PDD scores. Gender, as per Hadera et al. [26], does not show any significant correlation, while Mora-Ros & Ortega-Ortega [27] also find no significant correlation between age and gender. In contrast to previous findings, the importance of qualifications diminishes in the post-assessment period [28]. Additionally, there is no noticeable relationship between accreditation status, years of experience, missed visits, and PDD scores. These findings suggest that although some criteria are important, factors such as gender, age, experience, attendance, and status may not have a major influence on how people perceive prejudice in mental health settings. This systematic approach contributes to a more nuanced understanding of the variables influencing perceptions of discrimination and devaluation by highlighting key findings and distinguishing between variables with significant and nonsignificant correlations. Table 5 shows that age has been identified as a reliable indicator of how people perceive the quality of home healthcare. Significant correlations were observed during both the pre-assessment and post-assessment, aligning with previous research that emphasized the influence of age on perceptions of healthcare services [29, 30]. The results of the pre-assessment indicate a strong connection between initial expectations and service selection. However, the post-assessment results show a weaker correlation, suggesting that the initial impressions may change based on actual care experiences. The post-assessment results demonstrate a significant relationship between perceived treatment quality and exposure to assault, which is consistent with research indicating that safety concerns negatively impact patient satisfaction and perceived care quality [30]. However, other factors, such as gender, experience, and missed visits, showed no significant relationship with perceived devaluation or quality of care, indicating that these variables may not play a critical role in shaping nurses' perceptions of home healthcare services [31]. In conclusion, the study underscores the importance of focusing on age-related factors and safety concerns in home healthcare service delivery while acknowledging the complexities of attitude and knowledge changes in nursing practice. Future research should continue to explore these relationships to better understand and improve home healthcare for psychiatric patients.

## LIMITATIONS OF THE STUDY

The study highlights the advantages of home health care (HHC) for patients with mental illness and the role of nurses in delivering this care. However, there are limitations to consider. The sample size is small compared to the total number of HHC nurses, potentially not fully capturing the views of the broader nursing community. Relying on self-reported data may introduce bias, and the absence of a qualitative component limits the depth of information on nurses' attitudes and challenges.

## CONCLUSIONS

The study indicates a significant improvement in nurses' knowledge of HHC basics and quality standards following the intervention program. This highlights the potential for targeted interventions to enhance nurses' understanding of essential HHC components. The results also suggest a relationship between perceived devaluation and knowledge of HHCQ before the intervention, though the latter is not statistically significant. These findings emphasize the complex interplay between attitudes and knowledge, necessitating further investigation to develop effective strategies for reducing relapses and readmissions among psychiatric patients. Tailoring interventions to nurses' qualifications, age, and exposure to assault may enhance their knowledge and attitudes toward HHCQ. Additional research is required to identify optimal methods for implementing and evaluating HHC for mental health patients and address any existing challenges within the current framework.

### RECOMMENDATIONS

- Develop customized training programs to enhance the quality of home health care services provided by nurses in Saudi Arabia.
- Incorporate trauma-informed care training into nursing education and professional development programs.
- Provide ongoing professional development opportunities for nurses, focusing on home health care quality.
- Offer workshops, seminars, and training sessions to keep nurses updated on best practices in mental health care and home services.
- Monitor and address knowledge gaps through regular assessments and targeted support.

### NURSING IMPLICATIONS

- Promote trauma-informed nursing practices and support nurses in navigating emotional challenges related to assault exposure.
- Encourage team collaboration for comprehensive patient care and advocate for lifelong learning and professional development among nurses.
- Facilitate knowledge sharing among nurses with different qualifications and experience levels.
- Implement individualized care plans based on patients' unique needs and preferences.

### BROADER HEALTH POLICY IMPLICATIONS

- To improve patient outcomes and reduce relapse and readmission rates, healthcare policies should integrate mental health services into home healthcare (HHC) by equipping providers to address both mental and physical health needs.
- Policies should mandate continuous training in mental health care, interpersonal skills, and psychosocial assessment to improve provider-patient interactions.
- Emphasizing cultural competence in healthcare education ensures providers are responsive to diverse backgrounds, especially in HHC.
- Community-centered care models focused on prevention and early intervention should be prioritized to prepare local providers for managing chronic conditions at home.
- Policymakers should also implement systems to track and evaluate the impact of home-based care and training programs, supporting policy enhancements and achieving optimal outcomes.

### ETHICAL CONSIDERATION

The study received approval from the research unit at the College of Nursing, Jeddah, followed by official approval from KAIMRC and IRB (IRB/1640/23). The approval letter was then reviewed by the Ministry of Health to obtain their consent for conducting the study at the Erada complex for mental illness and addiction. Subsequently, permission was granted by the hospital manager to involve nurses in the study. The study participants were contacted to discuss the objectives and methodology. They were informed of their right to withdraw from the study at any time without facing any consequences, and that their participation was voluntary. Participants were assured that their responses would remain anonymous, and that the information provided would be treated as confidential in both the NGHA office and the archives.

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*All participants provided written informed consent after receiving a thorough explanation of the study objectives and procedures. No adverse effects or unintended consequences were reported during the study.*
Further data is available from the corresponding author upon reasonable request.

**CONFLICT OF INTEREST**
The Authors declare no conflict of interest

**CORRESPONDING AUTHOR**
**Amal Ibrahim Khalil**
King Saud Bin Abdulaziz University for Health Sciences
Prince Mutib Ibn Abdullah Ibn Abdulaziz Rd,
Ar Rimayah, Riyadh Jeddah, Saudi Arabia
e-mail: amalkhalil34@yahoo.com

**ORCID AND CONTRIBUTIONSHIP**
Amal Ibrahim Khalil: 0000-0001-8419-2289 A F
Manni Alharbi: 0009-0004-1624-4357 B C
Reem Alsulami: 0009-0007-7945-7511 C D
Manar Alotaibi: 0009-0000-8385-5909 D F

A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article

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