



Developing an assessment tool for geropsychiatric mental healthcare knowledge and attitude evaluations in clinical practice for nursing students

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Abstract

Aim: To develop an instrument to investigate geropsychiatric psychological symptoms, health problem nursing knowledge (GPN-K), geropsychiatric psychological symptoms and health problem nursing attitude scale (GPN-A) in clinical practice for nursing students.

Design: Instrument development and cross-sectional study for psychometric testing.

Methods: Construct validity was evaluated using confirmatory factor analysis (CFA) and exploratory factor analysis (EFA), and internal consistency was calculated using Cronbach's α .

Results: A total of 300 students have completed the questionnaires (85.71% response rate). The CFA of GPN-K showed good fitness and validity. The Kuder-Richardson 20 (KR-20) value of the internal consistency reliability is 0.64. The GPN-A overall content validity index is 0.95. A three-factor structure was shown by exploratory factor analysis. The three factors are communication and care, helping others improve and problem evaluation tendency. The total variance explained is 59.01%. Cronbach's alpha of GPN-A equals 0.84, which represents good internal consistency.

KEYWORDS

attitude, geropsychiatric, knowledge, nursing student

1 | INTRODUCTION

WHO has reported that the proportion of the world's population over 60 years will increase from 12%–22% (WHO, 2017). In Taiwan, the elderly population has reached 3.55 million, accounting for 15.06% of the total population by September 2019. The ageing index has increased by about 46% in the past 10 years (Ministry of the Interior, 2019). The elderly are more likely to feel more pressure with ageing (Evans, 2008; Puentes et al., 2010; Steven, 2013). According to statistics, about one-fifth of the elderly suffer from mental illness which normally are depression, dementia, delirium, alcoholism, drug

abuse, suicide etc. 20%–25% of the elderly who are hospitalized or living in nursing homes may have mild depression, and 12% of this group have severe symptoms (Chiang et al., 2006; Institute of Medicine [IOM], 2012; Karel et al., 2012).

More elderly patients tend to seek medical treatment and care when they are feeling physically unwell (Steven, 2013). The mental disease of the elderly is often overlooked or underestimated (Aschbrenner et al., 2011). The general public often have negative attitude towards mental illness, which is exaggeratedly labelled by the society and the media. The stigma of mental illness often hinders the patient from accepting early treatment and compiling medical

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advice (Kobau et al., 2010; Leicester, 2007). Nursing staff's attitude towards psychiatric patients will also affect their way of caring patients and the rehabilitation (Chen, 1994; Wu et al., 2019). Ross and Goldner (2009) selected medical staff as the research objects and found that interns and nursing students believe that patients with mental illness are dangerous, unpredictable, uncontrollable and need to be isolated. This negative attitude is especially common among non-psychiatric medical staff, of some even think that taking care of those patient is a waste of time. This makes the treatment unequal for patients.

Research by Mccann and Lu (2009) found that nursing graduates still have misunderstandings about mental illness and its medical care after years of study. They show less interests in engaging in psychiatric nursing work. They believe that psychotropic drugs and medical treatments are ineffective for those patients. McLaughlin (1997) pointed out that nursing students' attitude to patients is affected by their experience while studying at school. Some studies also found that internship experience has a positive effect on changing nursing students' attitude to mentally ill people (Chen et al., 2003, 2018). Callaghan et al., (1997) had a survey on 215 nursing students and found that those whose families have mental illness histories or their friends who are mentally ill have higher acceptance of mentally ill patients.

Currently, there are limited evidence and a few assessment tools of the psychosis disease of the mental healthcare knowledge, attitude and skill evaluations on the healthcare workers. Compton et al., (2007) have developed an assessment tool to test 441 clinical workers on the psychometric properties of a brief, multiple-choice knowledge about schizophrenia. It has found that knowledge about schizophrenia can be assessed with brief, self-administered, multiple-choice knowledge tests. Munro et al., (2007) have evaluated 49 mental health nurses on the impact of training of therapeutic attitudes and knowledge. The assessment tools included the comorbidity problems perceptions questionnaire (CMPPQ) to measure the therapeutic attitude and a structured questionnaire on the knowledge of alcohol, drugs and comorbidity. James and Cowman (2007) used questionnaire to evaluate psychiatric nurses' knowledge, experience and attitude towards client with borderline personality disorder.

The questionnaire includes five sections which are the basic demographic questions, including frequency of contact with patients, beliefs of adequate BPD care receiving and BPD diagnosis, treatment and prognosis, the information of confidence in working with BPD, beliefs of the working role and what useful resources in improving care. Esterberg et al., (2008) had a survey on 111 urban African American community members about their level of familiarity with mental illness knowledge about schizophrenia, and social distance towards individuals with schizophrenia. The level of educational attainment, gender, having a friend with a history of psychiatric treatment and having known someone with schizophrenia was significant predictors of how much knowledge they have about schizophrenia. Another research has used an assessment tool to determine the officers with the crisis intervention team (CIT) training programme on the level of familiarity and exposure to mental

illnesses. It has assessed the police officers of attitudes regarding aggressiveness and violence among individuals with schizophrenia and assesses the level of knowledge about schizophrenia among lay community members, family members of patients with schizophrenia and police officers (Compton et al., 2006).

However, the measurement of the attitude of nursing psychiatric patients is mostly based on the discussion of the overall attitude of caring the patients. The nursing knowledge section is only adaptable for the measurement of patients with perceptual, cognitive and emotional disorders.

There was a gap in the assessment tools of psychosis disease of the mental healthcare knowledge and attitude evaluations on the nurse student. At present, there is no effective tool in clinical education that can be used to assess the mentality and nursing knowledge, attitude of intern nursing students in the care of elderly mental patients' symptoms and health problems. The main purpose of this study is to construct nursing knowledge and attitude assessment tools for psychological symptoms and health problems of elderly mental patients.

2 | METHOD

This study uses convenient sampling to collect quantitative data. Nursing students who had taken psychiatric nursing practice are selected as the research objects to revise and validate the assessment tool for geropsychiatric mental healthcare knowledge and attitude. This study has completed question corrections through experts' validity verification and previous research.

2.1 | Questionnaires

Based on this research reference literature, the results of researchers' previous qualitative study (Wu et al., 2019), moreover, and a research team (including experts in clinical psychiatric nursing, psychiatrists and faculty of psychiatric and mental health nursing) were invited to jointly draft the geropsychiatric psychological symptoms and health problem nursing knowledge scale (GPN-K) and geropsychiatric psychological symptoms and health problem nursing attitude scale (GPN-A).

2.1.1 | Geropsychiatric psychological symptoms and health problem nursing knowledge scale (GPN-K)

The research team referenced literature and qualitative research results and developed 25 nursing knowledge questions based on the clinical conditions and nursing process about the mental symptoms and health problems of elderly mental patients. The scale content includes, evaluating the elderly's mental and physical health, identifying their mental illness symptoms and what measures should be taken while nursing, what drugs to be used

for treatment. Physical and mental health assessment section is divided into physical and psychological assessment with 6 questions designed. 2 questions are about mental function assessment. Mental symptoms identification and main nursing measures contain seven categories of symptoms and cares which are delusions, hallucinations, cognitive impairment, depression, dementia psycho-behavioural symptoms, suicide and delirium with a total of 14 questions designed (Appendix 1). There are 3 questions about drug treatment and nursing. A right answer for each question is worth 1 point, otherwise 0 points. The higher the score is, the more nursing knowledge for the symptoms and health problems of the elderly with mental illness the students are mastering. 11 experts are invited to check the validity of the scale's initial questions. The content validity index (CVI) is 0.95.

2.1.2 | Geropsychiatric psychological symptoms and health problem nursing attitude scale (GPN-A)

A total of 24 questions were prepared after reviewing literature of nursing attitudes for the mental problems of the elderly with dementia and depression from home and abroad and the concept of related questionnaires. 19 questions (Appendix 2) were finally designed according to the suggestions came out from the validity check by experts. The scale scores based on 5-point Likert. 1 point means "strongly disagree," 2 points mean "disagree," 3 points mean "neutral," 4 points mean "agree," the score of 5 means "strongly agree." The higher the score is, the more positive the nursing attitude towards the elderly psychiatric patients. 11 experts are invited to check the validity of the scale's initial questions. The content validity index of this scale is 0.95.

2.2 | Number of samples and sampling method

In this study, convenient sampling is adopted to select the research objects who have studied psychiatric nursing practice. Here are the following standards that students need to reach to be selected as the research objects: (a) nursing students who have studied psychiatric nursing practice; (b) nursing students who are willing to sign the consent form. We excluded students who have not studied psychiatric nursing practice or who have been studying psychiatric nursing practice but have not passed evaluation.

A sample size of a minimum 300 people was recommended by Tabachnick and Fidell (2013) to acquire a stable factor structure for the exploratory factor analysis (EFA). Bentler and Chou (1987) suggested that the number of samples can vary from 5–10 times than the original based on variables of each questionnaires (Huang, 2014). GPN-K has 25 questions. GPN-A has 19 questions. The number of the objects and the questions are in the proportion of 1:5 (Wu, 2007; Huang, 2014), considering the loss of 20% of the sample. Therefore, the sample selected for this study is an estimate of 264.

2.3 | Research ethics

Research Ethics Committee approval was obtained from the Institutional Review Board (IRB) (NCKU HRE CE-107-278-2). Before carrying out the test, the researcher explains the research purpose in order to gain the interviewee's consent. The researcher also provides a confidentiality commitment, including the anonymity and confidentiality principles of the research content. Respondents have the right to refuse participating at any time of the survey with the score unaffected.

2.4 | Data analysis

Geropsychiatric psychological symptoms, health problem nursing knowledge and GPN-A are used to carry out reliability and validity tests, including internal consistency analysis, confirmatory factor analysis and exploratory factor analysis. SPSS for Windows 23.0 is also used to build files, and SAS[®] is used for data analysis.

2.4.1 | Reliability analysis

Internal consistency of this research, since the GPN-K adopts the dichotomous scoring method, the Kuder-Richardson 20 (KR-20) (Kuder & Richardson, 1937), is suitable for the measurement of dichotomous variables, which is characterized by content reliability and can explain the source of error in content sampling and content heterogeneity. Cronbach's α coefficient is adopted as the standard for detecting internal consistency in the nursing attitude scale (Polit & Beck, 2006). Internal consistency estimates the extent to which factors made up of survey questions within a scale assessing a single construct and is measured by Cronbach α . This scores the internal consistency of scales from 0–1 with score of 0 are indicative of no consistency (the questions are unrelated to each other) and scores of 1 indicate that the items are practically identical. The higher the value of Cronbach's α is, the more consistent internally of the tool. It is believed that the value needs to be at least 0.8 to be considered as good reliability (Polit & Beck, 2006). For the newly developed scale, the value that is <0.6 is unacceptable, 0.6–0.65 is not ideal, 0.7 indicates that it is in the lowest acceptable level, 0.7–0.8 is acceptable, 0.8–0.9 otherwise is very good, the value of 0.9 or above indicates that the scale questions might be too long and should be shortened (DeVellis, 2003).

2.4.2 | Validity analysis

Content validity

An expert validity test is conducted in order to figure out whether the nursing knowledge and attitude scales of this research can represent and reflect the research contents. According to Soeken (2005), the content validity of experts is to quantify the experts'

opinions on measurement tools. 11 experts in different fields, including 5 senior experts in clinical practice of mental care, 2 senior physicians in psychiatry, and 4 senior teachers in mental health care are invited to conduct expert validity review. Experts review the fitness of the content according to the purpose of the study and score it with 5-point scoring method. The scoring criteria are 1 point means "strongly unfit," 2 points mean "unfit," 3 points mean "slightly fit," 4 points mean "fit," 5 points mean "strongly fit." The content validity index needs to be at least 0.8 for the question to be adopted. If 80% of the 11 experts score 4 points for the question, then it will be retained. (Polit & Beck, 2006). Then, the experts' suggestions on the wording and description will be taken to modify the questions in order to be more appropriate.

Constructing validity

Confirmatory factor analysis (CFA). Statistical Analysis System (SAS[®]) is used to perform CFA to test hypothesized factor underlying the correlated factors. Confirmatory factor analysis is a hypothetical factor structure or priori theory for confirming the consistency of the factor structure and the collected data. It is mostly used to inspect whether the specific indicators or topics are categorized to the dimensions as theoretically expected (Huang, 2014). The contents of the scale consist of four dimensions: assessing the mental and physical health of the elderly, determining their mental illness symptoms, the nursing measures that should be taken and medical treatment. In this study, GPN-K uses four major interpretation indicators, absolute adaptation indicators, root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), adaptation index increment, adjusted goodness of fit index [AGFI]; streamlining adapter index, the ratio of the chi-square. If the RMSEA value is <0.05, it represents the theoretical model is acceptable, and the standard is set at "good fit." If RMSEA value is between 0.05–0.08, it is set as "good fit." The value between 0.08–0.10 represents "moderately fit." If the value is greater than 0.1, it represents "not fit." SRMR value varies between 0–1 and has to be below 0.1 for better functioning in this study. The closer the value is to 0, the more fit of the model is. AGFI adjusts GFI according to variables. Generally, whether the AGFI value is higher than 0.9 indicates if the model should be accepted.

Exploratory factor analysis (EFA). Exploratory factor analysis is the theory foundation for researchers to explore factor structures. Therefore, data collection of this research is to explore the factor structure or theory that can explain the variables (Huang, 2014). In study, the construct validity of GPN-A is tested by using exploratory factor analysis. Before analysing the factors, the amount of the number of KMO (Kaiser-Meyer-Olkin Measure) needs to be decided and Bartlett's sphere test needs to be carried out to see whether the information is suitable for factor analysis. The test results of KMO values and value of chi-square spherical test must be at a significant level which is $p = .000$, that will show that the research sampling is suitable to be applied to the factor analysis (Chiou, 2011).

In this study, principle component analysis is used to extract common factor whose feature value must be greater than 1 to meet the factor select standards. Then, the Varimax is used to analyse the factors structures. There are three main standards for deleting questions in the analysis of factor structures: firstly, those who have <3 questions within a single factor, secondly, if the questions have cross-factor situations, which is, the factor loading is above 0.6, finally, if the factor loading is <0.3, then the question will be deleted.

3 | RESULTS

A total of 350 students were recruited to participate in the study. 300 students have completed the questionnaires (85.71%, $N = 300$). Most of the participants study at college-level five (67.7%, $N = 203$). The average age of the interviewees is 19.23 years old, and 95% of them are women ($N = 285$) (Table 1).

The construction process of the GPN-K, GPN-A, GPN-P is, firstly, experts are invited to conduct content validity verification. The scale content will be revised according to the experts' reviews. Secondly, confirmatory factor analysis (CFA) is used to verify the validity and construct validity of the knowledge scale to confirm the fitness of the scale's categories and questions. The construction process is specified below:

3.1 | Reliability and validity analysis of GPN-K

3.1.1 | Expert content validity of GPN-K

According to Soeken (2005), the content validity of experts is to quantify the experts' opinions to measurement tools. 11 Experts in different fields, including 5 senior experts in clinical practice of mental care, 2 senior physicians in psychiatry and 4 senior teachers in mental health care, are invited to conduct expert validity review. The content validity index (CVI) is 0.95.

3.1.2 | Confirmatory factor analysis of GPN-K

This study recruited 300 students who had completed the study of psychiatric nursing practice to conduct the validity analysis. Confirmatory factor analysis (CFA) and maximum likelihood method are used to estimate the overall fitness index of different GPN-K models for selecting best model for the validity analysis of this tool.

They are presented in three models:

1. Raw model: assuming that there are no common factors in the knowledge scale and all observation variables are completely independent.
2. The model after first adjustment: accounting the residuals from the top 10 LM statistical values of error variation and covariation into the empty model to do first adjustment.

3. The second adjustment model: accounting the residuals from the top ten LM statistical values of error variation and covariation into the first adjustment model to do the second adjustment

The overall adaptation indexes of the three models in this analysis all meet the standards of the accepted model. The estimated SRMR is 0.08, and RMSEA is 0.05. If the estimated values are <0.95 , it shows that the model does not violate the estimation, which means the best model adopted in this research is fit for research (Table 2).

3.1.3 | Reliability analysis of GPN-K

The KR-20 value of the internal consistent reliability is 0.64. As for the newly developed scale, if the value is <0.6 , then it is unacceptable, between 0.6 ~ 0.7 is the minimum acceptable level (DeVellis, 2003).

3.1.4 | Question analysis of GPN-K

It has been found that average score of the questions of GPN-K is 60.75. 89.3% of the research objects answer question 4 correctly. The correct rate of question 5 is 85.2%. Only 8%, 12%, 39% of interviewees answer questions 18, 16, 22 correctly, respectively (Table 3).

3.2 | Reliability and validity analysis of GPN-A

3.2.1 | Expert content validity of GPN-A

After the expert validity analysis of GPN-A, 5 questions (question 11, 12, 13, 15, 17) were suggested to be deleted from 24 questions due to the ambiguity of the meaning. Therefore, a total of 19 questions were designed. The overall content validity index is 0.95.

3.2.2 | Exploratory factor analysis of GPN-A

Exploratory factor analysis (EFA) is used in GPN-A. Bartlett's sphere test needs to be carried out to see whether the information is suitable for factor analysis. The test results of KMO value are 0.859, the value of chi-square spherical test is 2,989.241. This shows that the collected data are suitable to be applied to the factor analysis (Chiou, 2011). In this study, principle component analysis and varimax are used to extract common factors to carry out the analysis of GPN-A with 19 questions. A total of three factors were obtained, the total variance explained is 59.01%. The feature values were 2.78, 4.52 and 3.44 in particular order, and the factor loading is between 0.85–0.45 (Table 4). However, according to the results of the scree test, it indicates the possibility of the existence of three main factors. The total 27.24% variables that can be explained by sub-factor one, the percentage of total variables that can be explained by sub-factor

two is 24.53%, and the total variables that are explained by sub-factor three are 7.24%. These three types of factor groups explain 59.01% of the variables. The three factors are initially named as communication and caring, helping others improve, problem evaluation tendency.

3.2.3 | Reliability analysis of GPN-A

Cronbach's α value indicates the internal consistency of GPN-A, which is 0.84 in this study. The internal consistency is very good (DeVellis, 2003).

3.2.4 | Question analysis of GPN-A

The results of the study show the highest score; the objects achieved is 89 points, and the lowest is 47 points, the overall average score is 66.96 ($SD = 8.30$), with 3.52 points per question. This scale is to further understand the importance of nursing students' self-assessment on the importance of caring elderly mental patients and attitudes such as self-affirmation. Here is the analysis of the result. The total number of the research objects is 300.

In terms of the factor analysis, among the categories of communication and care, helping others improve, problem evaluation tendency, questions 11, 9, 5 themed helping other improve achieved highest score in answering as strongly agree. This indicates that students have positive attitude towards caring patient and the illness can be cured through treatment. However, they think it is not easy to undertake caring work and the patients rely on their own ability to improve the problem is not feasible. The students' attitude on psychological symptoms and health problems of elderly patients are in continuous exploration (Table 5).

4 | DISCUSSION

4.1 | Reliability and validity analysis of the content

This study establishes scales on nursing students' knowledge and attitudes to nursing elderly mental patients and are tested with reliability and validity. Overall, the results of the study show that the scales have good reliability and validity. GPN-K is designed based on the first phase of qualitative research. The necessary steps, which are assessment, diagnosis, plan execution and evaluation of nursing students in clinical nursing practice, were considered. In this study, a total of 25 questions are designed for the nursing knowledge scale (GPN-K). Confirmatory factor analysis is used to verify the validity of the scale. A CRRS model is formed after modified. The adjustment of the statistical analysis shows that the GPN-K is a scale with good fitness and validity. This study selected 300 nursing students as the research objects who had no difficulty in reading or answering the questions in the scale, which means the those questions are easily

to be understood and answered and can explain the clinical nursing knowledge for caring elderly mental patients.

The GNP-A questionnaire is created according to the interview and analysis of nursing students' internship experience in the first stage of this study, the literature review of nursing attitude and interactions with mental patients. 300 nursing students who have completed the study of psychiatric nursing practice were selected to do the survey without any difficulty in reading or answering. There are a total of 19 questions in the GPN-A scale. The result of exploratory factor analysis shows three factors which are communication and care, helping others improve, problem evaluation tendency. These factors are not only theoretically related to the attitude of nursing elderly mental patients, but also echo the professional qualities (humanistic care, service enthusiasm, professional ability) of nursing professions in nursing industries (Chen et al., 2008; Chen, 2010). This study shows the scale can evaluate nursing students' attitude towards elderly mental patients.

4.2 | The response of 300 nursing students

This study involved 300 nursing students who have only underwent psychiatric nursing practice for the first time, so they do not have rich clinical experience in nursing elderly mental patients. Of the 300 nursing students in this study, 26% of them are familiar with nursing knowledge for the mental symptoms and health problems of elderly mental patients, 36% of students believe they are familiar with the knowledge in a certain level through self-assessment; however, 48% of nursing students are not familiar with the knowledge. This result shows that the GPN-K established in this study can distinguish the degree of mastering clinical nursing knowledge from familiar to unfamiliar. 300 students showed a degree of unfamiliarity with the response to 10 of the 25 questions. Those questions with low familiarity are mostly related to the medical treatment, the common symptoms of elderly mental patients and the treatment activities for the elderly with cognitive dysfunction.

These questions reflect advanced practice of mental health care for the elderly by American GPNC (2010). Nursing students in this study are less familiar with the aetiology and medical treatment of psychiatric diseases, but will achieve higher acknowledgement of the nursing knowledge through the intervention of problem-oriented clinical practice teaching in this study. The results of this study support the need of strengthening problem-oriented clinical practice teaching in order to increase nursing students' knowledge and the ability of caring elderly mental patients (Beck et al., 2012).

The result shows 300 students have less positive attitude towards nursing elderly mental patients. Based on the literature review, the general public's attitude towards mental patients is more negative. Medical staff and nursing students who have contact with mental patients are more likely to be positive, nursing students, that especially influenced by internship practice, are with positive tendency (Lauber et al., 2000; Vezzoli et al., 2001; Wu et al., 2019). Kuo et al. (2014) stated that it is more unlikely for young people to accept

mental patients behaviour which is consistent with study results from home and abroad (Fung et al., 2007; Han & Chen, 2008; Kobau et al., 2010; Verhaeghe & Bracke, 2008). Internship experience might influence the emotions and attitudes of the students who get in touch with mental patients for the first time.

4.3 | Study limitations

This study had some limitations. Only 300 students from nursing colleges in southern Taiwan participated in the study, and participants were also not randomly selected. In the future, it is recommended to expand the participation of nursing students. In addition, those participating in this test this time are 18- to 20-year-old students. It is their first time to study psychiatry and face elderly psychiatric patients, and lack personality maturity. The CFA result of geropsychiatric psychological symptoms and health problem nursing knowledge scale (GPN-K) is only moderately well at present and have not yet reached very good.

Students have not yet fully grasped the subject of mental health care for the elderly, and school nursing education should be strengthened in the future. Also, geropsychiatric psychological symptoms and health problem nursing attitude scale (GPN-A) are only doing exploratory factor analysis (EFA) at this time. In the future, confirmatory factor analysis (CFA) can be done, further analysing the construct validity of the GPN-A scale.

5 | CONCLUSION

This research constructed a tool for nursing knowledge and attitudes of care for elderly mental patients with conclusions for clinical practice. The measurement results of the Nursing Knowledge Questionnaires indicate the ability of nursing students of complying academic knowledge in tackling clinical problems. There are three aspects of evaluating students' attitudes towards nursing elderly mental patients, which are communication and care, helping others improve and problem evaluation tendency to evaluate a professional's qualities.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

AUTHOR CONTRIBUTIONS

CsW led the study design, data collection, data analysis, interpretation and manuscript preparation; JrR, MfC and CyL contributed to

the data analysis, interpretation and manuscript preparation; all authors read and approved the final manuscript.

DATA AVAILABILITY STATEMENT

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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APPENDIX 1

GPN-K

Questions

GPN-K-1 How earlier are Taiwan's patients with mental disorders ageing?

GPN-K-2 What are the main nursing goals of nostalgic treatment to elderly patients with cognitive dysfunction?

GPN-K-3 What is the narration of the suicidal thoughts of the elderly mental patients?

GPN-K-4 What are the main principles of caring the hospitalized elderly mental patients who attempt to commit suicide?

[Case 1] A 68-year-old male patient began complaining about his family stealing his money with no evidence in the past year. The patient insisted that the money was stolen by his family who got and attacked and expulsion by the patient. Today, his eldest son took the patient to the psychiatric department for hospital treatment. Please answer the following questions 5 and 6 based on this situation,

GPN-K-5 What are the mental symptoms of this elderly patient?

GPN-K-6 What are the main nursing principles for caring this patient?

[Case 2] After the enquiry of the patient's symptoms, the medical staff found that the above-mentioned strange behaviours and reactions were often appear and more obvious during the evening dusk. The Family members also reported that the patient had lost his way after going out in the evening but was sent back by his neighbours. Please answer the following questions 7 and 8 according to this situation:

GPN-K-7 What is the possible mental illness the patient have?

GPN-K-8 What are the main nursing principles for this patient who's just hospitalized?

[Case 3] A 58-year-old elderly mental patient who have syndromes for many years. He often has hallucinated of hearing voice. For example, he heard people arguing over him being a culprit. Sometimes, he was also seen yelling loudly outside the window. He feels innocent and the hospital is no help improving his situation. He rarely interacts with patients in the same ward but often pack his bags and sits at the door of the ward asking to be discharged. Please answer the following questions 9 to 12, in terms of this situation:

GPN-K-9 What is the main mental symptoms of this elderly mental patient?

GPN-K-10 This patient will roar out of the window to express that he is innocent. What are the main nursing principles of caring this patient?

GPN-K-11 What are the negative symptoms of this patient?

GPN-K-12 This patient rarely interacts with other patients and believes that hospitalization is no help for him and often sits at the door of the ward asking to be discharged. What are the main nursing principles in terms of this situation?

[Case 4] An elder without a history of mental illness recently experienced confusion in memories and orienting direction was diagnosed as a symptom of serious imbalance of water and nutrient intake. He gradually recovered after medical treatment. Please answer the following questions 13 and 14 based on this situation,

GPN-K-13 What mental illness this elderly may have gained?

GPN-K-14 What are the main nursing principles for caring this patient?

[Case 5] A 69-year-old man has been feeling down, useless disappointed at himself for no reason in the past month. He often cries alone, can't sleep at night, feels helpless, hopeless, lacks of appetite and loses interest in daily activities. Please answer the following questions 15-17 according to this situation,

GPN-K-15 What is the possible mental illness the patient have?

GPN-K-16 What are the causes of crying and helplessness for no reason?

GPN-K-17 This patient has attracted his family's attention and sought medical assistance. At present, what are the aspects that still need to be paid attention when caring this patient?

GPN-K-18 What need to be paid attention when using selective serotonin reuptake inhibitors (SSRIs) antidepressant drug therapy to this patient?

GPN-K-19 What are the side effects to chronic mental patients who are treated with atypical antipsychotic drugs for a long time?

GPN-K-20 What are the nursing principles that should be paid attention to when using psychiatric drugs in the elderly

GPN-K-21 What problem will appear when elderly mental patients facing the effects of ageing and mental illness?

GPN-K-22 What are the comorbidities of elderly mental patients?

GPN-K-23 What elements should be included when evaluating the mental cognitive function (JOMAC) of the elderly mental patients?

GPN-K-24 What are the common chronic diseases for elderly patients with mental disorders

GPN-K-25 What psychological problems that need to be paid attention to when caring the hospitalized elderly patients with mental illness?

APPENDIX 2

GPN-A

Titles

GPN-A- 1 I think elderly mental patients can cause harm to others.

GPN-A-2 I think elderly mental patients are unpredictable.

GPN-A- 3 I think it is difficult to communicate with elderly mental patients

GPN-A- 4 I think if elderly mental patients receive treatment and support, their health problems will be improved

GPN-A- 5 I think elderly mental patients feel the same way as we do most of the time

GPN-A- 6 I think elderly mental patients are able to calm down after receiving care

GPN-A- 7 I think the symptoms of the elder mental patients can be treated and controlled

GPN-A- 8 I think treatment can help improve the life of elderly mental patients

GPN-A- 9 I think elderly mental patients should be cared equally

GPN-A- 10 I think the problems of elderly mental patients are caused by themselves

GPN-A-11 Receiving medical treatment irregularly is an important predictor of mental illness recurrence.

GPN-A-12 Elderly people suffering from mental illness have difficulty in improving health problems by themselves.

GPN-A-13 The condition of elderly mental patients suffering from mental illness can be improved without any treatment.

GPN-A-14 Unwillingness to change personality is the main reason for the elderly to obtain mental illness

GPN-A-15 Caring for elderly mental patients is a difficult job

GPN-A-16 The problematic behaviour of elderly mental patients is unacceptable.

GPN-A-17 The mental behavioural symptoms of the elderly patients with cognitive impairment are symbols of protesting against the outside world.

GPN-A-18 I think the mental illness of the elderly can't be cured. There is no need spending too much time and energy on nursing

GPN-A-19 I think it is very difficult to take care of elderly mental patients, even when necessary