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CORRELATION BETWEEN DISCLOSURE STATUS AND STRESS IN MEN WHO HAVE SEX WITH MEN WITH HIV

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Abstract

Men who have sex with men living with HIV (MSM-LWH) experience psychological and social issues, including depression, anxiety, fear of infecting others, frustration, and social isolation. They may also experience problems in their relationships due to a fear of social stigma, such as marital issues, family conflicts, a lack of family support, economic difficulties, and social rejection by the family. This research aimed to assess the relationship between HIV status disclosure and stress in MSM-LWH in Medan, Indonesia. Here, a cross-sectional design and the convenience sampling technique were used. A total of 176 respondents who were MSM, HIV positive, and residents of Medan City were included in this work. Data were collected by means of HIV Status Disclosure questionnaires and a Perceived Stress Scale (PSS). Overall, 70.9% respondents reported disclosing their status to others and approximately half revealed experiencing stress. Moreover, HIV status disclosure was significantly associated with stress (p= 0.025). This study reveals that HIV status disclosure may result in negative effects on MSMLWH, represent a barrier to medical treatment, and increase internal stress.

Keywords: HIV, men who have sex with men, status disclosure, stress

Abstrak

Hubungan antara Status Disclosure dengan Stres pada Lelaki yang Berhubungan Seks dengan Lelaki dengan HIV. *Lelaki yang berhubungan Seks dengan lelaki (LSL) yang hidup dengan HIV mengalami masalah psikologis dan sosial termasuk depresi, kecemasan, ketakutan menulari orang lain, frustasi dan isolasi sosial. Selain itu juga mengalami masalah dalam hubungan sosial karena takut akan stigma, konflik dalam keluarga, kurangnya dukungan keluarga, kesulitan ekonomi dan penolakan oleh keluarga. Penelitian ini bertujuan untuk mengetahui hubungan antara status disclosure HIV dengan stress pada LSL yang hidup dengan HIV di Medan, Indonesia. Metode yang digunakan adalah cross-sectional dengan menggunakan teknik convenience sampling. Sebanyak 176 responden LSL dengan HIV positif dan tinggal di wilayah kota Medan. Data dikumpulkan dengan menggunakan HIV Status Disclosure Questionare dan Perceived Stress Scale (PSS). Hasil penelitian menemukan bahwa sebanyak 70,9% responden memiliki status disclosure HIV rendah, sementara itu sebanyak 55,1% resonden mengalami stress yang tinggi. Status disclosure HIV secara bermakna dikaitkan dengan stress (p= 0,025). Penelitian ini mengungkapkan bahwa status disclosure HIV dapat memberikan efek negatif pada LSL yang hidup dengan HIV dan menjadi penghalang untuk perawatan medis dan meningkatkan stress internal.*

Kata Kunci*: HIV, lelaki yeng berhubungan seks dengan lelaki, status disclosure, stres*

Introduction

In 2015, the numbers of people living with HIV/ AIDS (PLWHA) and new infections worldwide reached 36.7 million and 1.8 million, respectively. The number of deaths due to HIV/AIDS has also risen to 1.1 million. Among new HIV infections recorded globally, 18% occurred in patient or sex partners, 13% occurred in men who had sex with men (MSM), 8% occurred in users of injectable drugs, 5% occurred in sex workers, and 56% occurred in others (UNAIDS, 2017).

In December 2016, 319,048 PLWHA were recorded in Indonesia, and this number has gradually increased over time. For example, a comparison of numbers of PLWHA in 2015 and 2016 revealed an increase of 10,621 cases and an increase in mortality of 41 cases over a span of 1 year. Thus, the number and mortality rate of PLWHA in Indonesia may be concluded to increase. Also, in Indonesia, there are a number of 31,543 people with risk factors for MSM groups who were declared HIV positive (Ministry of Health Republic of Indonesia, 2017b). Data for 2007–2011 showed an 8.5-fold increase in the number of MSM LWH. Thus, after heterosexuals, MSM have the second highest risk of HIV (Ministry of Health Republic of Indonesia, 2017a).

Among Indonesia's provinces, North Sumatra ranks seventh in terms of number of PLWHAs (n= 16,856) and fifth in terms of mortality rate (n= 558) (Ministry of Health Republic of Indonesia, 2017b). H. Adam Malik Hospital Medan is the main referral hospital for the North Sumatran region and treats 4,620 HIV/AIDS patients. Based on data on the percentage of PLWHA in Medan in 2016, according to risk factors, the largest percentage was 46.34% in homosexuals, while 53.66% was divided into heterosexuals, transmission via IDU, blood transfusion, and the rest is unknown (Field of PMK, Health Office Medan City, 2016).

The MSM group includes gay and heterosexual men who have sex with other men, bisexual men, male sex workers who have multiple orientations, and men who practice this type of behavior in various settings, such as prisons, and have various traditional cross-cultural identities. The high-risk behaviors of MSM, such as unprotected anal sex, frequencies of sexual activity with male partners, and high numbers of male partners, contribute to the high HIV transmission rates among MSM (Beyrer et al., 2012). The negative social stigma associated with the sexual orientation and HIV status of MSM is also associated with feelings of fear and an inability to divulge the truth regarding this matter (Pereira, Caldeira, & Monteiro, 2017). The MSM group is highly vulnerable to HIV infection because of their unhealthy activities and increased stress.

PLWHA may experience other issues, including those related to social and emotional aspects (Hinkle & Cheever, 2013), besides physical problems due to their deteriorating body conditions. For instance, MSM-PLHIV experience psychological and social problems including depression, anxiety, fear of infecting others, frustration, and social isolation. They may also experience problems in their relationships due to a fear of social stigma, such as marital issues, family conflicts, a lack of family support, economic difficulties, and social rejection by the family (Dejman et al., 2015). The physical problems experienced by this group are generally related to the gradual weakening of their immune system. The vulnerability of the immune system of PLWHA may result in increased risk of developing opportunistic infections, such as pulmonary Tuberculosis, herpes zoster, pneumonia, chronic diarrhea, hepatitis, Kaposi's sarcoma, lymphoma, neurological disorders, and even malignancies (Black & Hawks, 2009; Ignatavicus & Bayne, 2010;). Many diseases that develop due to a decrease in body immunity can be life threatening and exacerbate the poor health conditions of PLWHA.

Methods

Study Design. In this cross-sectional study, 176 HIV positive MSM aged 18 years and older were recruited by the convenience sample technique. Pirngadi Medan, Medan City Health Center, and Padang Bulan City Health Center Medan City, Indonesia, are government-owned health facilities with VCT services. Each respondent completed a questionnaire that was originally written in English, translated into Indonesian, and then back translated by a language expert. This research was conducted from May to June 2018.

Measures. Data were obtained from completed demographic data questionnaires, a Brief Scale

for HIV Self Disclosure Questionnaire, and a Perceived Stress Scale (PSS). The results of the validity and reliability tests of all questionnaires were confirmed to be valid and reliable with Cronbach's alphas of 0.73 and 0.78, respectively.

Analysis. Data analysis was conducted using SPSS version 23. Data of variables featuring ordinal and nominal scales were presented as frequencies and percentages, while data of variables featuring interval scales were presented as means and standard deviations. Analysis of the relationships among HIV status disclosure variables and stress was conducted using the Chi-squared test.

Ethical Consideration. Ethical approval was obtained from the Faculty of Nursing, Universitas Indonesia. All participants provided written informed consent prior to filling out the questionnaires, and all questionnaires were filled out in an isolated room to protect respondent privacy.

Results

Most of the respondents in this research worked in the formal sector as government staff, while others worked in the informal sector, such as salons or bartenders. Some respondents were sex workers. Although most of these workers were private employees in the high-income category, they were closely related from those who worked as permanent employees or civil servants, as can be seen from the fact that approximately 49.1% of the respondents belonged to the high-income group. Moreover, most of the respondents had at least a high school education.

Analysis at an alpha level of 5% found a significant relationship between status disclosure and stress on respondents ($p= 0.025$, $\alpha= 0.05$). Whereas in the analysis of the closeness of the relationship between the status of openness with stress is indicated at the OR value of 0.219 (OR 95% CI).

Discussion

Most respondents (70.9%) had not disclosed their HIV positive status to others, and as many as 55.1% of the respondents reported high stress levels. A significant relationship between status disclosure and stress was found among MSM ODHA ($p= 0.025$, $\alpha= 0.05$). The results of this work are similar to those of previous studies that found low social and family acceptance among men with HIV/AIDS and that MSM who are well received in the family have a better emotional welfare impact but do not affect on risky sexual behavior (Meyer, 1995; Kuyper & Fokkema, 2011).

Table 1. Characteristics of the Respondents (n= 176)

Variable	Mean	SD
Age (year)	29.39	6.459
Length of diagnosis (month)	19.10	15.923
Duration of ART (month)	17.99	15.897
	N	%
Education		
Elementary	2	1.1
Junior high	6	3.4
Senior high	103	58.9
College	64	36.6
Occupation		
Unemployed	14	8
Employed	161	92
Income (Minimum Wage, North Sumatra)		
Low	89	50.9
High	86	49.1

Table 2. Correlation of Disclosure Status with Stress in MSM HIV-Positive in Medan (n= 176)

Disclose HIV status	Stress						OR (95%CI)	Sig
	Low		High		Total			
	n	%	n	%	n	%		
High	48	37,5	80	62,5	128	47,2	0,219	0,025*
Low	26	55,3	21	44,7	47	52,8	(0,115–0,415)	
Total	74	100	101	100	175	100		

*sig α= 0.05

In this study, 124 respondents (70.9%) reported low levels of HIV status disclosure, while 51 respondents (29.1%) indicated low levels of HIV status disclosure. These results are identical to those of Wei How, Thomas, and Koe (2012, who found that 67.3% of respondents living with MSM were discreet to anyone. Zhao et al. (2016) found that only 21.2% of gay MSM had disclosed their sexual orientation to their parent. Many Chinese gay men are married to heterosexual women (heterosexual marriages) or lesbian (convenience marriages) but continue to participate in homosexual relationships in secret. HIV status is not often disclosed because of fears related to stigma and discrimination. Interventions targeting HIV disclosure among MSM living with HIV (MSM-LWH) should focus on improving perceptions of disclosure self-efficacy and outcome expectancy and include a booster session to facilitate HIV disclosure (Zhao et al., 2016).

Research by Lin et al. (2015) suggested that MSM are more likely to disclose their sexual orientation than their HIV status. However, in the results of the present study, the majority of the respondents had undisclosed HIV status to others, likely because the average length of time since the diagnosis of the respondents was relatively short. Daskalopouloe et al. (2016) revealed that the length of time since diagnosis is related to HIV status disclosure and that HIV status disclosure is a gradual process.

Most of participants indicated significant levels of uncertainty when anticipating how other people would react to their HIV status. Opinions ranged from acceptance to discrimination and from disinterest to fear. These negative feeling may motivate MSM to refrain from disclosing their HIV status or be selective about the people with whom they choose to share this information. The participants also described dealing with social stigma rooted in negative beliefs and (mis)representations of the disease in combination with homophobia. Some men have highlighted the importance of having an undetectable viral load as a mediator of the negative impact of stigma and discrimination (Pereira et al., 2017).

MSM with HIV-positive status may face various types of stigma related to their health status and stigma related to their sexual identity. Stigma and discrimination related to homosexual activities and HIV/STD infection are the major barriers to MSM seeking health services. HIV/AIDS programs must be sensitive to issues of stigma in and out of the MSM community. Confidentiality and supportive follow up services for HIV-positive MSM are among the first issues that must be guaranteed by HIV intervention programs to persuade more MSM to report for HIV testing. These issues represent some barriers preventing MSM from revealing their HIV status; instead, those who are infected tend to avoid HIV-related issues. A common perception in society is that MSM are deviant, immoral, and unworthy of love. In some cultures, aggressive and hostile attitudes toward same-sex sex are linked to the idea that HIV is a punishment for homosexual behavior (Feng et al., 2010; Jeffries et al., 2014)

Besides the threat of physical problems faced by PLWHA, this group is also prone to social

problems related to the stigma of the disease. A study on stress showed that respondents very depressed if they had to disclose their HIV/AIDS status to the public, did not know how to explain their illness to others, experienced unpredictable health conditions and feelings of rejection and undesirability, and feared that they could transmit the disease to family and friends and that family and friends may become stigmatized (Feng et al., 2015).

MSM-LWH may experience complex problems related to their disease and status. In general, the problems of MSM-LWH are different from those experienced by PLWHA because the latter are related to stigmas related to sexual orientation, such as discrimination, homophobic, and physical violence, all of which may produce minority stress as a form of chronic psychosocial stress (Kuyper & Fokkema, 2011). According to Meyer (1995), stress minority is a state of stress in MSM populations associated with various stresses, coping mechanisms, and impacts on psychological problems. Minority stress refers to the state of stress experienced by MSM due to discrimination and prejudice from their environment, fear of rejection, indecisiveness about disclosure or concealment of status, internalization of stigma or negative views of themselves as MSM, and poor inability to cope with stress itself (Rostosky & Riggle, 2017). Poor self-acceptance is one of the factors contributing to the stress of MSM, who often tend to conceal their sexual orientation from their immediate family and community (Savin-Williams, 1989). Such concealment will ultimately affect the physical and psychological health of MSM-LWH.

Meyer (1995 found that high minority stress levels may cause 2-3 fold increases in difficult circumstances/suffering. Several studies have shown that stress negatively affects the mental health of MSM-LWH. Kelleher (2009) explored the impact of minority stress on psychological pressure on the lesbian, gay, bisexual, and transgender (LGBT) community in Ireland and revealed that the negative stigma arising from sexual orientation has a negative impact on the welfare of this community. Other studies reported symptoms of depression and a high risk of suicide in the LGBT community, which are associated with emotional stress due to negative experiences brought about by perceptions of being treated poorly or discriminated against because of their sexual orientation (Almeida, Johnson, Corliss, & Molnar, 2009).

The influence of stress on MSM-LWH presents physical, emotional, intellectual, social, and spiritual consequences that may occur simultaneously. Physically, stress can interfere with physiological homeostasis and result in poor physiological signs and symptoms arising from the activation of the lymphatic and neuroendocrine systems. The response to stress may be manifested as increases in cardiac rate, muscle tension, blood sugar, and respiration rate, among others. Emotionally, stress causes negative or non-constructive feelings among MSM-LWH. Intellectually, stress affects the ability of MSM-PLHIV to solve problems. Socially and spiritually, stress can affect the relationships of MSM-LWH with others and their value/belief systems held (Berman, Snyder, Kozier, & Erb, 2016).

MSM-LWH may experience various conditions contributing to stress. This stress is often caused by life changes related to the disease and its status. Research indicates that the stress felt by PLWHA MSM is caused by feelings of pressure in making decisions related to disclosure or concealment of status, unpredictable health conditions, rejection from their social environment, and the fear of transmitting HIV to their family/friends (Feng et al., 2015). The stress of MSM-LWH is related to not only their HIV status but also stigma toward their sexual orientation. For example, discrimination, homophobia, and physical violence can result in a minority stress as a form of chronic psychosocial stress (Kuyper & Fokkema, 2011; Rostosky & Riggle, 2017).

Conclusion

HIV status disclosure may exert negative effects on MSM-LWH, represent a barrier to me-

dical treatment, and increase internal stress. Health workers must provide education to MSM-LWH to encourage them to comply with their treatment programs and improve their health status.

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EFFECTIVENESS OF PEER-ASSISTED LEARNING IN NURSING STUDENT KNOWLEDGE AND COMPLIANCE IN THE APPLICATION OF STANDARD PRECAUTIONS

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Abstract

The learning process in higher nursing education develops student competences, such as applying standard precautions, in providing professional nursing care. To improve student knowledge and compliance related to standard precautions requires innovation from lecturers in providing appropriate learning methods. Peer-assisted learning (PAL) can enhance the active role of students and improve achievement. The PAL method involves senior students as peer teachers who help junior students. Using a questionnaire as an assessment instrument, this study aimed to determine the effectiveness of PAL on knowledge and compliance in the application of standard precautions in student nurses. This study design was quasi experimental with pre and post assessment and a control group design approach. This research was conducted at the D Hospital in Padang, Indonesia, a hospital where students practice. This study was conducted in June–September 2017 with a sample size of 45. Data analysis using paired t-test showed that the average values of the level of knowledge and skills of students in the application of standard precautions before and after PAL methods differed significantly in the intervention group (p= 0.001). In conclusion, PAL can be applied in the learning process of nursing students to increase student achievement.

Keywords: nursing student, peer-assisted learning, standard precaution

Abstrak

Efektifitas Metode Peer-Assisted Learning terhadap Tingkat Pengetahuan dan Kepatuhan Mahasiswa dalam Penerapan Kewaspadaan Standar. *Proses pembelajaran dalam pendidikan tinggi keperawatan mengembangkan kompetensi siswa, seperti menerapkan tindakan pencegahan standar, dalam memberikan asuhan keperawatan profesional. Untuk meningkatkan pengetahuan dan kepatuhan mahasiswa terkait kewaspadaan standar, dibutuhkan inovasi dari dosen dalam memberikan metode pembelajaran yang tepat. Peer-assisted learning (PAL) dapat meningkatkan peran aktif siswa dan meningkatkan prestasi. Metode PAL melibatkan mahasiswa senior sebagai peer-teacher yang membantu mahasiswa junior. Menggunakan kuesioner sebagai instrumen penilaian, penelitian ini bertujuan untuk menentukan efektivitas PAL pada pengetahuan dan kepatuhan dalam penerapan kewaspadaan standar pada mahasiswa keperawatan. Desain penelitian ini adalah quasi experiment dengan penilaian pre dan post dan pendekatan control group design. Penelitian ini dilakukan di Rumah Sakit D di Padang, Indonesia, sebuah rumah sakit tempat praktik mahasiswa. Penelitian ini dilakukan pada Juni–September 2017 dengan sampel 45. Analisis data menggunakan paired t-test menunjukkan bahwa nilai rerata tingkat pengetahuan dan keterampilan mahasiswa dalam penerapan kewaspadaan standar sebelum dan sesudah metode PAL berbeda secara signifikan pada kelompok intervensi (p= 0,001). Kesimpulannya, PAL dapat diterapkan dalam proses belajar siswa keperawatan untuk meningkatkan prestasi siswa.*

Kata kunci*: kewaspadaan standar, mahasiswa keperawatan, peer-assisted learning*

Introduction

Nursing education supports the development of competence university campuses and in hospitals or other practical settings (Scheckel, 2016). The hospital exposes students to real situations and the demands of nursing practice to achieve the expected clinical competence (Sheahan, While, & Bloomfield, 2015).

A basic clinical competence encountered in the hospital is the application of standard precau-

tions (Al-Rawajfah & Tubaishat, 2015), to prevent, protect, and minimize the occurrence of cross-infections among health care workers, including nurses, in direct contact with the body fluids of infected patients (Cheung et al., 2015; Berman, Snyder, Kozier, & Erb, 2016).

According to Williams, Olaussen, and Peterson (2015), peer-assisted learning (PAL) is a learning method that can be applied in the hospital setting. PAL encourages active student participation in learning by assigning senior students as peer teachers of junior students. At the time of hospital practice, students are always in contact with fellow students and peers, which enhances their confidence, commitment, concern for others, and sense of familiarity to facilitate the learning process. Cheung et al. (2015) found that senior students have a superior level of knowledge to junior students with regard the application of standard precautions.

Preliminary studies observed 10 students who practice at the D Hospital in Padang, Indonesia and found that six students still had poor adherence to while five students lacked knowledge about the standard precautions. The observations and interviews revealed that senior students had the knowledge and the ability to apply standard precautions better than junior students. During preclinical observations, students often ask professionals how to carry out the practice. Furthermore, the results of interviews with six lecturers in three nursing educational institutions in Padang City showed that PAL had never been applied. Four lecturers mentioned that students are equipped with materials on standard precautions before entering hospital practice. These studies indicate that research is required to determine the effectiveness of PAL on increasing the knowledge and compliance levels of nursing students in the application of standard precautions.

Methods

The research design was *quasi experimental* with a pre and post control group design. The total sample included 45 nursing students divided into an intervention group (22) and a control group (23). Non-probability sampling with consecutive sampling was used. The sample inclusion criteria were a willingness to participate junior status or those undergoing clinical practice. Peer-teacher senior students who had academic ability and good practices as indicated in their prior assessment results were included in this study.

Student knowledge and compliance assessment was carried out using the questionnaire developed by Chan et al. (2002). The level of knowledge instrument consisted of 18 yes/no items. The compliance level instrument consisted of 16 items with "always," "often," "sometimes," "rarely," and "never" being the answer choices.

This study was conducted after obtaining an administrative license, passing an ethics review and applying the principles of research ethics.

The intervention was performed in the clinical setting for 3 weeks. We designed the PAL sessions as student-led case-based discussions about standard precautions in the clinical setting. We anchored the sessions to their clinical experiences and aimed to support great self-direction among our students because case-based discussion is a successful format for PAL by incorporating the identification of learning objectives linked to cases. Students were allocated to groups of four or five peers for PAL sessions, which occurred once per week. Each group consisted of one senior student acting as a peer teacher. The peer teacher presented the case about compliance in the application of standard precautions. The group provided feedback to the peer teacher on their presentation. The peer teacher then taught a topic related to the case. Students selected the topic for the session themselves as an important learning objective linked to the case. They were also guided in their choice of topic by curricular documents. Students had already received teaching in core clinical topics. Therefore, the

PAL sessions focused on the review and application of prior learning to real cases. These sessions occurred at the bedside and in other locations within the clinical sites in the hospital. Each student attended three PAL sessions.

Quantitative data were analyzed using Statistical Package SPSS. The mean, standard deviations, and minimum and maximum knowledge and compliance student scores about standard precautions were investigated using univariate analysis. A dependent sample t-test was also performed to examine whether or not the knowledge and compliance student scores about standard precautions differed before and after PAL. All tests were two tailed unless otherwise stated. Statistical significance was considered at $p < 0.05$.

Results

The knowledge scores of the participants about standard precautions before and after PAL in the intervention and control groups are listed in Table 1. Compliance scores on standard precautions before and after PAL in the intervention and control groups are shown in Table 2. The effectiveness of PAL on increasing the knowledge and compliance of students in applying standard precautions was indicated by the results of analysis before and after PAL in the intervention and control groups (Table 3).

Table 1. Score of Nursing Student Knowledge about Standard Precautions before and after PAL in the Intervention and Control Groups at the D Hospital in Padang, Indonesia (n= 45)

Group	n	Measurement Knowledge Scores	Mean ± SD	Min–Max
Intervention	22	Before	12.05 + 1.96	8–15
		After	15.27 + 1.49	12–18
Control	23	Before	11.43 + 1,83	8–15
		after	11.65 + 1.58	10–15

Table 2. Compliance Score on Standard Precautions before and after PAL in the Intervention and Control Groups at the D Hospital in Padang, Indonesia (n= 45)

Group	n	Measurement Compliance Score	Mean ± SD	Min-Max
Intervention	22	Before	65.77 + 5.77	55–77
		After	69.73 + 5.01	60–78
Control	23	Before	63.74 + 7.39	50–76
		After	64.39 + 7.28	50–76

Table 3. Differences in Compliance Knowledge and Application of Standard Precautions before and after PAL on the Intervention and Control Groups at the D Hospital in Padang, Indonesia (n = 45)

Variable	Intervention (n= 22)			p	Controls (n= 23)			p
	Mean	SD	Min - Max		Mean	SD	Min - max	
Knowledge								
Prior	12.05	1.96	8–15	0.001*	11.44	1.83	8–15	0.096
After	15.27	1.49	12–18		11.65	1.58	10–15	
Compliance								
Before	65.77	5.77	55–77	0.001*	63.74	7.39	50–76	0.074
After	69.73	5.01	60–78		64.39	7.28	50–76	

* significant at α= 5%

As shown in Table 3, the mean scores of knowledge before and after PAL in the intervention group were 12.05 and 15.27, respectively. Further analysis in the intervention group showed a significant difference in the knowledge scores before and after PAL ($p= 0.001$; $\alpha= 0.05$), whereas further analysis in the control group showed no significant difference in the knowledge scores before and after PAL ($p= 0.090$; $\alpha= 0.05$).

The compliance score before PAL in the intervention group was 65.77, and the average score given therapy adherence after PAL was 69.73. Further analysis in the intervention group showed a significant difference in the compliance scores before and after PAL ($p= 0.001$; $\alpha= 0.05$), whereas further analysis in the control group revealed no significant difference in the adherence scores before and after PAL. The unknown mean scores of compliance before and after PAL in the control group were 63.74 and 64.39, respectively. Further analysis showed no significant differences in the scores of compliances before and after PAL in the control group ($p= 0.074$; $\alpha= 0.05$).

Discussion

The results of this study demonstrate the effectiveness of PAL in improving the knowledge and compliance scores of nursing students in applying standard precautions. The results are consistent with those of several previous studies that demonstrated the effectiveness of PAL in clinical learning. Pelloux et al. (2017) compared the effect of PAL with lecturer-guided learning on 86 students and found that PAL is effective in improving students' ability to insert a peripheral venous catheter ($p= 0.026$). Williams et al. (2015) studied 38 student paramedics and demonstrated the effectiveness of PAL in increasing the confidence ($p= 0.02$) and enhancing the activity and motivation of the students ($p= 0.009$). Pelloux et al. (2017) and Williams et al. (2015) also applied PAL in the learning process in the classroom.

PAL allows people from similar social groupings, despite not being professional teachers, to help each other to learn by teaching (Williams, Fellows, Eastwood & Wallis, 2014). PAL is used to teach clinical procedures in specific programs for students who are currently doing clerkships and learning in a skills laboratory. PAL is a common teaching and learning method in medical and health education (Hamso, Ramsdell, Balmer, & Boquin, 2012). In the setting of skills laboratories (skills labs), student tutors are often employed as an equivalent alternative to teachers (Williams et al., 2014).

Burke et al. (2007) stated that PAL can be used as an additional method in the learning process of students in a practical environment, especially to practice clinical skills. PAL is effective in raising objective structured clinical examination test scores, self-confidence, communication skills, and collaboration among students or seniors. Burke et al. (2007) concluded that PAL is effective in improving the clinical skills of students.

PAL is mutually beneficial for student tutors and student learners (Yu et al., 2011). On the one hand, PAL supports the cognitive, psychomotor, and affective development of student learners, thereby increasing their self-confidence, autonomy, clinical reasoning, self-evaluation, and peer collaboration (Secomb, 2008). On the other hand, student tutors also benefit from this program and are able to improve their individual knowledge, skills, and attitudes while practicing interaction and leadership competencies. This program can enable student tutors to become better learners themselves, which in turn helps their undergraduate education, future residency, and faculty membership. Some st-dies have shown that the so-called "social and cognitive congruence" between student tutors and student learners plays an important role in PAL. Given their similar social roles, student tutors and learners are assumed to be socially congruent (Bugaj et al., 2019).

Feedback from our respondents in this research indicated that they felt that structure was needed during times when they were expected to direct their own learning. The introduction of PAL sessions to clinical attachments about standard precautions offered an opportunity to address this need, provide organizational support by scheduling a structured activity, and to provide pedagogic support by encouraging students to take responsibility for their own learning. PAL was implemented to support student development as a community of learners by providing a framework within which students could work together, encourage mutual engagement among students, and to promote the development of domain-independent skills, such as teamwork, organization, and communication. The peer teacher in this research showed that self-confidence and professionalism are needed for teaching peer learners in the clinical setting. The peer learners also described the importance of a clear structure and efficient time management in the application of standard precautions.

The success of PAL in the educational process of medical students and health professionals has been widely reported and is considered a learning method that involves active collaboration and cooperation between senior and junior students (Yu et al., 2011). With the PAL method, senior students explain the concepts in a simple language in accordance with the ability of junior students as peer learners (Ten Cate & Durning, 2007), resulting in cognitive congruence. Thus, junior students are more open to discussion with senior students than with lecturers. Equality also resulted in a common understanding between senior and junior students to the expected competence and achievement in the learning process.

In real situations, most of the learning that takes place between nursing students in practice has been addressed as informal. Nursing students learn the clinical skill in hospitals through the nurses. The recognition of potential gaps in time spent with mentors or clinical preceptors and the missed opportunity to learn alongside them cause problems in practice. Nursing education must prepare students to competently conduct appropriate and safe practices to patients. This procedure is an obligation for students to become professional nurses. Student competency must be achieved to meet all health needs, especially in solving patient health problems. Strategies and learning methods applied are expected to improve the achievement of student competencies in the learning process (McKenna & French, 2011).

Peer support has emerged as an influential factor influencing student learning. Peer support is most beneficial in providing emotional support, sharing experience to facilitate learning, and performing physical tasks. Much of the research regarding PAL programs investigated the validity of the claim that PAL benefits all students participating. Diverse literature supports the notion that PAL promotes teaching skills, improves professional skills, such as communication, time management, responsibility, and self-confidence, and increases the knowledge base of peer teachers (Beard, O'Sullivan, Palmer, Qiu, & Kim, 2012; Ross & Cameron, 2007; Secomb, 2008). The reported benefits of students being taught by their peers are observed through an increased openness in classes, with improved access, involvement, interest in learning, and confidence in class participation. Despite the absence of expertise from peer teachers, several studies have also reported improved cognitive and psychomotor abilities compared with non-peer led programs. Nonetheless, lack of expertise is the greatest cause of concern for PAL programs in terms of the quality of student learning. Other issues include high levels of time and resources required to implement PAL programs and students reporting incompatibility with senior students as peer teachers (Hammond, Bithell, Jones, & Bidgood, 2010; Secomb, 2008).

This research provided evidence that PAL enhances the competence of student learning and self-efficacy in the clinical settings, especially

the knowledge and compliance of students in applying standard precautions. Student nurses should also be encouraged to become peer teachers. Owen and Ward-Smith (2014) evaluated the interactions during simulated learning between third-year students playing the role of patients and mentors alongside first-year students providing care and receiving guidance from senior students. This near-peer teaching approach provides a positive learning opportunity for all students and encourages knowledge and skills attainment (Owen & Ward-Smith, 2014). Evidence was also provided in the area of peer mentoring between second-year nursing student mentors and first-year mentees within the academic environment (Gilmour, Kopeikin, & Douche, 2007). Benefits of these partnerships support the transition from university to nursing practice by preparing students to be mentored in the clinical settings and reducing the anxiety of students (Li, Wang, Lin, & Lee, 2010).

The peer teachers in the present research thought that their own enthusiasm and high motivation as well as their similar role and level of expertise are substantial factors influencing the positive and productive atmosphere in PAL. The peer teachers found that the peer learners they taught were generally less anxious and felt fewer inhibitions in asking questions, talking about difficulties, and making mistakes. Carr et al. (2016) showed that PAL provides a comfortable learning environment where the students feel safe to ask questions or make mistakes. Consequently, the relaxed learning environment provided by PAL may enhance the academic performance of health and medical students. Authoritarian lecturers, overly lecturer-centered teaching, and angry lecturers could potentially counteract a relaxed educational environment (Patil & Chaudari, 2016).

Another factor that contributes to the ineffectiveness of PAL is role congruence. Senior students as peer teachers and junior students as peer learners share the role of students. This condition made the junior students comfortable, relaxed, and open in discussions with senior students. It also provided them the courage to think, ask questions, discuss, or practice their clinical skills. Moreover, motivation and confidence increased in the senior and junior students. Lockspeiser, O'Sullivan, Teherani, and Muller (2006) stated that cognitive congruence and role congruence support the effectiveness of PAL.

PAL provides many benefits to the learning process, including increasing social interaction between students and independence in learning (Simorangkir, 2015). PAL allows students to participate actively and think critically (McKenna & French, 2011).

Conclusion

PAL increases the knowledge and skills of nursing students in applying standard precautions. PAL can be used as a learning method for nursing students to improve their competencies in the cognitive and psychomotor terms to provide effective nursing care to clients. Students are expected to utilize PAL to improve the achievement of competencies in nursing practice. Nursing lecturers can apply PAL as a learning method in practical environments, such as hospitals. The role of lecturers in modifying learning methods is important to improve student competency and thus produce quality nursing graduates.

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FACTORS RELATED WITH NURSE COMPLIANCE IN THE IMPLEMENTATION OF PATIENT SAFETY INDICATORS AT HOSPITAL

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Abstract

Patient safety is one of the five crucial hospital safety issues. This study aimed to determine factors related with nurses' compliance in the implementation of indicators of patient safety goals (IPSG 1, IPSG 2, IPSG 5, and IPSG 6). This study was a descriptive correlative with a cross-sectional approach. Samples were recruited using a purposive sampling technique (n = 102). Data were analyzed using chi-square and Mann–Whitney tests. The results of this study indicate that the leadership style of the head nurse, rewards, attitudes, and motivation had a significant relationship with the level of adherence in the implementation of IPSG 1 and IPSG 2. The level of nurses' compliance in the implementation of IPSG 5 was only influenced by the leadership style of the room head and the nurses' positive attitude. None of the factors had significant relationships with the level of nurses' compliance in the implementation of IPSG 6. The consultative leadership style of the room head can change the level of nurses' compliance in the implementation of IPSG 1 by 5.6 times, with 5.06 times toward IPSG 2 and 4.71 times toward IPSG 5. This research recommends the need for consultative leadership style from the room head to carry out the roles and functions as a supervisor to improve associate nurses' compliance in the implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6.

Keywords: compliance, indicator of patient safety goals, nurse

Abstrak

Faktor-Faktor yang Berhubungan dengan Tingkat Kepatuhan Perawat dalam Implementasi Indikator Sasaran Keselamatan Pasien di Rumah Sakit*. Keselamatan pasien adalah salah satu dari lima isu penting keselamatan di rumah sakit. Penelitian ini bertujuan untuk menentukan faktor-faktor yang terkait dengan kepatuhan perawat dalam penerapan indikator sasaran keselamatan pasien (IPSG 1, IPSG 2, IPSG 5, dan IPSG 6). Desain penelitian menggunakan deskriptif korelatif dengan pendekatan cross-sectional. Sampel diambil dengan menggunakan teknik purposive sampling (n= 102). Data dianalisis dengan menggunakan uji Chi-square dan Mann-Whitney. Hasil penelitian menunjukkan bahwa gaya kepemimpinan kepala ruangan, penghargaan, sikap, dan motivasi memiliki hubungan yang signifikan dengan tingkat kepatuhan dalam penerapan IPSG 1 dan IPSG 2. Tingkat kepatuhan perawat dalam penerapan IPSG 5 hanya dipengaruhi oleh gaya kepemimpinan kepala ruangan dan sikap positif perawat. Tidak ada faktor yang memiliki hubungan signifikan dengan tingkat kepatuhan perawat dalam penerapan IPSG 6. Gaya kepemimpinan konsultatif kepala ruangan dapat mengubah tingkat kepatuhan perawat dalam penerapan IPSG 1 sebesar 5,6 kali, dengan 5,06 kali terhadap IPSG 2 dan 4,71 kali terhadap IPSG 5. Penelitian ini merekomendasikan perlunya gaya kepemimpinan konsultatif dari kepala ruangan untuk melaksanakan peran dan fungsi sebagai pengawas untuk meningkatkan kepatuhan perawat dalam penerapan IPSG 1, IPSG 2, IPSG 5, dan IPSG 6.*

Kata Kunci*: indikator sasaran keselamatan pasien, kepatuhan, perawat*

Introduction

Safety is a global as well as a hospital issue. Five important safety issues in the hospital are patient safety, health worker or officer safety, hospital building and equipment safety which may affect patient and officer safety, environmental safety (green productivity) which affects environmental pollution, and hospital business safety which is related with the hospital survi-

val. However, hospital activities can be performed only when there is patient, so patient safety is the main priority. Three of the 10 facts on patient safety released by the World Health Organization in 2018 are as follows: (1) adverse event (AE) is the 14th cause of global burden of disease or equal to diseases such as tuberculosis and malaria, (2) 1 of 10 patients experience AE while staying in the hospital, (3) 4 of 100 patients staying in hospital have nosocomial infection due to health treatment. Patient safety is a system in making patient healthcare services safer and preventing errors and side effects related with the administered healthcare service. The National Reporting and Learning System in the United Kingdom reported 307,975 patient safety incident cases from April 2016 to March 2017 with 1,500 AE cases and 194 cases that led to death. In Indonesia, the Ministry of Health through the Directorate of Health Effort Development online data per January 09, 2018 reported 836 no harm incidents, 790 near-miss incidents, and 1,056 AE and sentinel cases.

To enhance hospital safety, the Hospital Accreditation Commission (KARS) in 2018 released six Indicator of Patient Safety Goals (IPSG), i.e., identifying patient correctly; improving effective communication; improving security of high-alert medications; ensuring correct surgery location, procedure, and surgery on the patient; reducing risk of infection related with health services; and reducing risk of injury of patient due to fall. The actual implementation of patient safety in hospital is inseparable from health workers, especially with nurses, because nurses are the most dominant health workers, i.e., they account for 33.3% of the total health workers or 3,406,558 people (Ministry of Health of RI, 2018). Moreover, nurses have an important role in providing nursing care. This is related with the fact that nurses work 24 h to care for patients (Roussel & Swansburg, 2009). To implement patient safety program, nurse compliance is required.

Cilacap Regional General Hospital is a hospital owned by the local government of Cilacap Regency, Central Java, Indonesia, which is accredited by KARS in 2016. It is a type B nonteaching hospital with 299 beds. Its bed occupancy ratio in 2015 was 61.04% and in 2016 was 78.11% (Cilacap Regional General Hospital, 2016). Based on the report of Quality Improvement and Patient Safety committee of the General Hospital of Cilacap through the patient safety subcommittee, as regards IPSG in 2016, there were 26 harm incidents reports, 3 near-miss incidents reports, and 12 AE reports. Meanwhile, in 2017, the number of IPSG reports for harm incidents, near-miss incidents, AE, and sentinel were 4, 10, 8, and 1, respectively. Data related with patient safety indicators from the quality subcommittee of the Cilacap Regional General Hospital for IPSG 1, IPSG 2, IPSG 5, and IPSG 6 in the fourth quarter of 2017, i.e., October, November, and December, decreased by 3.14%, 8%, 0.3%, and 2%, respectively, compared with the data of the third quarter of 2017 which had not met the target of 100%. Meanwhile, IPSG 3 and IPSG 4 throughout 2017 did not decrease or matched the target of 100%.

The result of a preliminary study on the implementation of IPSG in Cilacap Regional General Hospital via interview on January 8–10, 2018, with the heads of some inpatient rooms showed that nurses in the inpatient room currently have decreased implementation of patient safety measures, especially for IPSG 1, IPSG 2, IPSG 5, and IPSG 6. The result of the observation of IPSG implementation for 3 days on 15 nurses shows that 60% of the nurses do not comply with rechecking patient's identification bracelet, reconfirming therapy or instruction given verbally or via telephone by colleague, washing hands before contact with patients, and reassessing fall risk of patient.

The scope of patient safety covers knowledge and health human resources. Nurse as a health human resources has an important role in patient safety and requires commitment to develop patient safety culture. Pujilestari, Maidin, and Anggraeni (2016) stated that 49.3% of nur-

ses have low patient safety culture. Mahdarsari, Handiyani, and Pujasari (2016) reported that 59% of nurse behaviors in maintaining personal safety is poor, while patient safety implementation in hospital according to the study by Purba (2017) shows that 43.9% of nurses have unsafe behaviors in implementing patient safety. In another study, Ernawati, Rachmi, and Wiyanto (2014) used a descriptive, observational through a fishbone approach based on man, machine, method, material, and alternative solutions using urgency seriousness growth and reported that the hand hygiene compliance of hospital inpatient nurses is still low (35%). High compliance is found after contact or after treatment, while very low and even 0% hand washing compliance is found before contact with a patient.

Nurses require compliance and self-awareness in implementing patient safety. Compliance means significant change in accordance with the set objective. Change in attitude and behavior starts from compliance, identification, and then internalization; thus, compliance is the first stage of change, so all factors supporting or affecting behavior will also affect compliance (Kelman, 2006). Nurse compliance in patient safety indicators implementation reflects the behavior of a professional nurse and may be affected by individual, organizational, and psychological factors (Tondo & Guirardello, 2017). This study aimed to determine factors related with nurses' compliance in the implementation of indicators of patient safety goals (IPSG 1, IPSG 2, IPSG 5, and IPSG 6).

Methods

This study used a cross-sectional approach. The research population was composed of all nurses working in the inpatient room of the X Hospital in Cilacap, Central Java, Indonesia. The sample was collected using convenience sampling technique with the following inclusion criteria: having worked ≥ 1 year and not on study duty or leave. The study sample was composed of 102 nurses, and to determine the number of nurses in each room, proportional random sampling technique was used.

This study used researcher-developed questionnaires. 1) In the attitude questionnaire, the materials or substances of nurse attitudes statements were adopted from Wawan and Dewi (2011), PMK R.I No. 11 of 2017 (Ministry of Health RI, 2017), and KARS (2018). 2) In the motivation questionnaire, nurse motivation statements were adopted from Sparks and Repede (2016), PMK R.I No. 11 of 2017 (Ministry of Health RI, 2017), and KARS (2018). 3) In the room head leadership style questionnaire, leadership style statements were adopted from Hersey, Blanchard, and Johnson (2013), PMK R.I No. 11 of 2017 (Ministry of Health RI, 2017), and KARS (2018). 4) In the work design questionnaire, work design statements were adopted from Taba (2018), PMK R.I No. 11 of 2017 (Ministry of Health RI, 2017), and KARS (2018). 5) In the reward questionnaire, reward statements were adopted from PMK RI No. 11 of 2017 (Ministry of Health RI, 2017), and KARS (2018). 6) In the compliance level observation sheet, statements were adopted from PMK R.I No. 11 of 2017 (Ministry of Health RI, 2017) and KARS (2018).

Validity test was performed through two stages, i.e., content validity and construct validity. The result of expert assessment for content validity (CVI and CVR) revealed that all questionnaires have CVI > 0.8 and CVR > 0, which mean that the contents of the questionnaires were relevant and essential or beneficial. The CVI value was not lower than 0.78 (Hendryadi, 2017). Construct validity and reliability tests of all model dimensions of the questionnaire show that the attitude model dimension has three invalid items, the motivation model dimension has four invalid items, the room head leadership style dimension has six invalid items, the work design model dimension has two invalid items, and the reward model dimension has five invalid items with scores < 0.44, (r count with N= 20 is 0.44), while the result of the reliability test is an alpha Cronbach value of 0.77–0.93. This study has passed the ethical review of the research ethics

commission of Universitas Padjajaran (number: 131/UN6.KEP/EC/2018 dated November 15, 2018).

Results

Tables 1a and 1b show that most nurses were female (59.8%), with average age and length of service of 32.64 years and 7.25 years, respectively. The most common education level of the nurses was associate degree (60.8%), while in the implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6, most nurses had positive attitude and strong motivation (73.5% and 74.5%, respectively). The leadership style of the room heads according to the perceptions of the implementing nurses are predominantly consultative leadership style (74.5%), while the work design was 73.5% effective, with 74.5% of nurses claiming that the current reward was acceptable.

Table 2 shows that the highest nurse compliance level in the IPSG implementation was in the implementation of IPSG 2 and IPSG 5 (70.6%), while the lowest was in the implementation of IPSG 6 (14.7%).

Table 1a. Nurse Characteristics in the Implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6 at the X Hospital (n= 102)

Variable	Category	n	%
Sex	Male	41	40.2
	Female	61	59.8
Education level	Diploma III	62	60.8
	Bachelor	40	39.2
Attitude	Positive	75	73.5
	Negative	27	26.5
Motivation	Strong	76	74.5
	Medium	26	25.5
Leadership style	Instructional	18	17.6
	Consultative	76	74.5
	Participative	4	3.9
	Delegation	4	3.9
Work design	Effective	75	73.5
	Ineffective	27	26.5
Reward	Suitable	76	74.5
	Unsuitable	26	25.5

Table 1b. Nurse Compliance in the Implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6 at the X Hospital (n= 102)

Variable	Measurement	
Age	Mean	32.64
	Median	31.00
	SD	6.054
	Min–Max	23–48
	95% CI	31.45–33.83
Duration of work	Mean	7.25
	Median	6.00
	SD	5.959
	Min–Max	1–23
	95% CI	6.08–8.42

Table 2. Dependent Variable with Nurse Compliance in the Implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6 at the X Hospital (n= 102)

Variable	Measurement	n	%
IPSG I	Compliance	69	67.6
	Noncompliance	33	32.4
IPSG 2	Compliance	72	70.6
	Noncompliance	30	29.4
IPSG 5	Compliance	72	70.6
	Noncompliance	30	29.4
IPSG 6	Compliance	15	14.7
	Noncompliance	87	85.3

Table 3. Correlation Between Independent Variable and Nurse Compliance in the Implementation of IPSG 1 at the X Hospital (n= 102)

Variable	Category		Compliance		n	p	OR
			Compliance	Noncompliance			
Sex	Male	f	28	13	41	1.000	-
		%	68.3%	31.7%	100.0%		
	Female	f	41	20	61		
		%	67.2%	32.8%	100.0%		
Education Level	Diploma III	f	39	23	62		-
		%	62.9%	37.1%	100.0%	0.290	
	Bachelor	f	30	10	40		
		%	75%	25%	100.0%		
Attitude	Positive	f	57	18	75	0.006*	3.958
		%	76%	24%	100.0%		
	Negative	f	12	15	27		
		%	44.4%	55.6%	100.0%		
Motivation	Strong	f	57	19	76	0.013*	3.500
		%	75%	25%	100.0%		
	Medium	f	12	14	26		
		%	46.2%	53.8%	100.0%		
Leadership Style	Instructional	f	6	12	18	0.005*	
		%	33.3%	66.7%	100.0%		
	Consultative	f	56	20	76		5.6
		%	73.7%	26.3%	100.0%		
	Participative	f	4	0	4		-
		%	100.0%	0.0%	100.0%		
	Delegation	f	3	1	4		1.5
		%	75%	25%	100.0%		
Work Design	Effective	f	52	23	75	0.714	-
		%	69.3%	30.7%	100.0%		
	Ineffective	f	17	10	27		
		%	63%	37%	100.0%		
Reward	Suitable	f	57	19	76	0.013*	3.500
		%	75%	25%	100.0%		
	Unsuitable	f	12	14	26		
		%	46.2%	53.8%	100.0%		

Table 4. Correlation Between Independent Variable and Nurse Compliance in the Implementation of IPSG 2 at the X Hospital (n= 102)

Variable	Category		Compliance		n	p	OR
			Compliance	Noncompliance			
Sex	Male	f	29	12	41	1.000	-
		%	70.7%	29.3%	100.0%		
	Female	f	43	18	61		
		%	70.5%	29.5%	100.0%		
Education Level	Diploma III	f	41	21	62	0.313	-
		%	66.1%	33.9%	100.0%		
	Bachelor	f	31	9	40		
		%	77.5%	22.5%	100.0%		
Attitude	Positive	f	59	16	75	0.006*	3.971
		%	78.7%	21.3%	100,0%		
	Negative	f	13	14	27		
		%	48.1%	51.9%	100.0%		
Motivation	Strong	f	59	17	76	0.016*	3.471
		%	77.6%	22.4%	100.0%		
	Medium	f	13	13	26		
		%	50.0%	50.0%	100.0%		
Leadership Style	Instructional	f	7	11	18	0.009*	-
		%	38.9%	61.1%	100.0%		
	Consultative	f	58	18	76		5.06
		%	76.3%	23.7%	100.0%		
	Participative	f	4	0	4		-
		%	100.0%	0.0%	1000%		
	Delegation	f	3	1	4		4.71
		%	75%	25%	100.0%		
Work Design	Effective	f	54	21	75	0.783	-
		%	72.0%	28.0%	100.0%		
	Ineffective	f	18	9	27		
		%	66.7%	33.3%	100.0%		
Reward	Suitable	f	59	17	76	0.016*	3.471
		%	77.6%	22.4%	100.0%		
	Unsuitable	f	13	13	26		
		%	50.0%	50.0%	100.0%		

Table 3 presents independent variables related with nurse compliance level in IPSG 1 implementation, i.e., attitude, motivation, reward, and leadership style of the room head ($p< 0.05$). The consultative leadership style of the room head had the highest odds ratio (OR, 5.6), which means that a consultative leadership style had 5.6 times chance to make implementing nurse more compliant in IPSG 1 implementation compared with attitude, motivation, and reward (OR 3.96 and 3.5).

Table 4 presents the independent variables related with nurse compliance level in IPSG 2 implementation, i.e., attitude, motivation, reward, and leadership style of the head of room ($p< 0.05$). The consultative leadership style had the highest OR (5.06), which reflects that the consultative leadership style had 5.06 times chance to make implementing nurse more compliant in IPSG 2 implementation compared with attitude, motivation, and reward (OR 3.97 and 3.47).

Table 5 lists the independent variables related with nurse compliance level in IPSG 5 implementation, i.e., attitude and leadership style of the head of room ($p< 0.05$). The consultative leadership style had the highest OR value (4.71), which indicates that a consultative leadership style had 4.71 times chance to make implementing nurses more compliant in IPSG 5 implementation compared with attitude (OR 3.17).

As shown in Table 6, no independent variable was related with nurse compliance level in implementing IPSG 6. The result of statistical test of nurse compliance in implementing IPSG 6 with independent variable shows no significant relation ($p > 0.05$).

Table 7 concludes that independent variables age and years of service have no significant relation with nurse compliance level in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 in the X Hospital ($p> 0.05$).

Discussion

In this study, we found that nurses' compliance level in IPSG 6 implementation was only 14.7% and no factor had significant relation with the nurses' compliance level. Substantially, the incidents of patients falling in the hospital reflected the service quality. According to Dit. Bina Yanwat – KM (2014) one of the nursing service indicators is patient safety, which includes patient falls. Patient falls could cause AE which should be noted by everyone, including nurses. Nurses can prevent fall risk among patients by performing preliminary assessment of fall risk, reassessment of fall risk if there is a change in the condition or medication of the patients, and giving special sign for patient with fall risk (KARS, 2018).

Based on the result of the questionnaire analysis, five indicators were used by the researchers to assess nurses' compliance level in IPSG 6 implementation: (1) 70.6% of nurses performed fall risk assessment to all new patients undergoing inpatient treatment, (2) 41.2% of nurses performed moderate to high fall risk reassessment to patient, (3) 27.5% of nurses wrote result of reassessment of moderate to high fall risk on the integrated patient development record sheet, (4) 20.6% of nurses observe every 2 h patients with moderate to high fall risk, and (5) 86.3% of nurses put on yellow identification bracelet on patient with moderate to high fall risk.

The age of nurses working in the X Hospital did not show any significant relation with their compliance level. This proved that older age of nurse did not guarantee compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. According to the researchers' analysis, age was not always followed by maturity. Age also determined work behavior and ability, including how individuals respond to stimulus, with varying age presenting different responses to the implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6. The research result was in line with the finding of Sumaningrum (2015) that no significant relation exists between age and nurse compliance in hand rub hand washing in hospital X of East Java province. Similarly, Natasia, Loekqijana, and Kurniawati (2014) reported no significant relation with performing nursing care for standard operating procedure (SOP) in the intensive care unit-intensive coronary care unit (ICU-ICCU) of Gambiran Hospital in Kediri, Indonesia.

The gender of nurses working in the X Hospital did not show any significant relation with their compliance level. It proved that gender difference did not determine nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 in the X Hospital. Researchers thought that male and female nurses in the X Hospital worked similarly and did not show any significant difference in providing services to patients, because they worked consistent with the existing SOP. The results of the study agreed with those by Ulfa and Sarzuli (2016) who revealed no significant relation or effect between internal factor (gender) and nurse compliance in performing standard catheter installation in

Unit II of PKU Muhammadiyah Yogyakarta Hospital. Similarly, Meliana, Anggraeni, and Alimin (2013) found no significant relation between gender and nurse compliance in implementing patient safety guideline in Stella Maris Makassar Hospital.

The education of nurses working in the X Hospital did not show any significant relation with their compliance level. This finding confirmed that education level did not determine nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 in the X Hospital. The researchers proposed that nurses with higher education level would have better performance because they had more extensive knowledge and insight than nurses with low education level, but they provided the same service standard to the patients; thus, the education level of service provider did not show significant difference.

Table 5. Correlation Between Independent Variable and Nurse Compliance in the Implementation of IPSG 5 at the X Hospital (n= 102)

Variable	Category		Compliance		n	p	OR
			Compliance	Noncompliance			
Sex	Male	f	30	11	41	0.804	-
		%	73.2%	26.8%	100.0%		
	Female	f	42	19	61		
		%	68.9%	31.1%	100.0%		
Education Level	Diploma III	f	41	21	62	0.313	-
		%	66.1%	33.9%	100.0%		
	Bachelor	f	31	9	40		
		%	77.5%	22.5%	100.0%		
Attitude	Positive	f	58	17	75	0.025*	3.168
		%	77.3%	22.7%	100.0%		
	Negative	f	14	13	27		
		%	51,9%	48.1%	100,0%		
Motivation	Strong	f	58	18	76	0.055	-
		%	76,3%	23.7%	100.0%		
	Medium	f	14	12	26		
		%	53,8%	46.2%	100.0%		
Leadership Style	Instructional	f	7	11	18	0.005*	-
		%	38,9%	61.1%	100,0%		
	Consultative	f	57	19	76		4.71
		%	75,0%	25.0%	100.0%		
	Participative	f	4	0	4		-
		%	100.0%	0.0%	100.0%		
	Delegation	f	4	0	4		-
		%	100.0%	0%	100.0%		
Work Design	Effective	f	54	21	75	0.783	-
		%	72.0%	28.0%	100.0%		
	Ineffective	f	18	9	27		
		%	66.7%	33.3%	100.0%		
Reward	Suitable	f	58	18	76	0.055	-
		%	76.3%	23.7%	100.0%		
	Unsuitable	f	14	12	26		
		%	53.8%	46.2%	100.0%		

Table 6. Correlation Between Independent Variable and Nurse Compliance in the Implementation of IPSG 6 at the X Hospital (n= 102)

Variable	Category		Compliance		n	p
			Compliance	Noncompliance		
Sex	Male	f	5	36	41	0.763
		%	12.2%	87.8%	100.0%	
	Female	F	10	51	61	
		%	16.4%	83.6%	100.0%	
Education Level	Diploma III	F	6	56	62	0.134
		%	9.7%	90.3%	100.0%	
	Bachelor	f	9	31	40	
		%	22.5%	77.5%	100.0%	
Attitude	Positive	f	12	63	75	0.754
		%	16.0%	84.0%	100.0%	
	Negative	f	3	24	27	
		%	11.1%	88.9%	100.0%	
Motivation	Strong	f	12	64	76	0.755
		%	15.8%	84.2%	100.0%	
	Medium	f	3	23	26	
		%	11.5%	88.5%	100.0%	
Leadership Style	Instructional	f	2	16	18	0.183
		%	11.1%	88.9%	100.0%	
	Consultative	f	11	65	76	
		%	14.5%	85.5%	100.0%	
	Participative	f	0	4	4	
		%	0%	100.0%	100.0%	
	Delegation	f	2	2	4	
		%	50.0%	50.0%	100.0%	
Work Design	Effective	f	13	62	75	0.343
		%	17.3%	82.7%	100.0%	
	Ineffective	f	2	25	27	
		%	7.4%	92.6%	100.0%	
Reward	Suitable	f	12	64	76	0.755
		%	15.8%	84.2%	100.0%	
	Unsuitable	f	3	23	26	
		%	11.5%	88.5%	100.0%	

Table 7. Correlation Between Age and Duration of Work with Nurse Compliance in the Implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6 at the X Hospital (n= 102)

Variable	Mean Median	SD	Min–Max	p			
				IPSG 1	IPSG 2	IPSG 5	IPSG 6
Age	32.64 31.00	6.054	23–48	0.649	0.808	0.805	0.440
Duration of Work	7.25 6.00	5.959	1–23	0.608	0.338	0.472	0.148

The results of the present study were consistent with that of Natasia et al. (2014), i.e., education does not have significant relation with nurse compliance in performing standard nursing care in the ICU-ICCU of Gambiran Hospital in Kediri.

The number of service years of nurses working in the X Hospital did not show any significant relation with their compliance level. This proved that the length of service of a nurse did not guarantee compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. Similar research result is found by Ulfa and Sarzuli (2016) who stated no significant relation between internal factor (length of service) and nurse compliance in performing standard catheter installation in Unit II of PKU Muhammadiyah Yogyakarta Hospital. In line with the study above, Sumaningrum (2015) also reported no significant relation between length of service and nurse compliance in *handrub* hand washing in hospital X of East Java province. According to the researchers' analysis, the length of nursing service in the X Hospital did not have significant relation with compliance level in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6, which might be due to different adaptation processes and experience of each nurse, thus causing issue in the work environment.

The leadership style of the room head had significant relation with nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 6 in the X Hospital. The finding of this study was in line with those of Meliana et al. (2013) and Anugrahini et al., (2010), i.e., a relation was found between the leadership style of the room head and nurse compliance in implementing patient safety guideline. In this case, if a leader can provide direction, supervision, and coordination to nurses well, it will create conducive work condition, so that nurses will comply to working in accordance with the existing SOP to provide services to patients. The effect of situational leadership style of the room head on nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 could be seen based on the interrelation between direction and support given by the room head to the nurse (Hersey et al., 2013). In the present study, in terms of direction and support by the room head, most implementing nurses preferred the consultative leadership style compared with other leadership styles. A consultative leadership style is a type of situational leadership style. A leader tries to implement the most effective leadership style by adjusting with the current situation (Martin, 2009). This finding is in line with that by Cunningham and Cordeiro (2003) who stated that leadership style affects the behavior of the subordinate who support the usage of the preferred style. Leadership style is an approach shown by a leader through explicit and implicit actions, which can be seen by others, to integrate organizational goals and individual goals to achieve a common objective (Campling, et al, 2006; Newstrom & Davis, 2002). Hersey et al. (2013) presented four situational leadership styles based on supportive and directive behaviors of a leader: in an instructional leadership style, the leader gives a lot of directions but little support to the staff. In the consultative type, the leader provides a lot of directions and support to the staff. In the participatory type, the leader gives a lot of support but little direction to the staff, and in the delegation type, the leader gives little direction and support to the staff. The researchers argue that most nurses in the X Hospital preferred consultative leadership style in which a leader shows a lot of directions and support. The nurses perceived leader with this style to be able and willing to explain their decisions and policies, as well as willing to accept employees' opinions. The consultative leadership style of the room head in the X Hospital had very important role on nurses' compliance in implementing IPSG 1, IPSG 2, and IPSG 5.

The current work design did not have any significant relation with nurses' compliance level. This proved that an effective work design did not necessarily affect nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 in the X Hospital. According to the researchers'

assumption, generally, a manager regulates the duties and responsibilities of each individual. Good work design encouraged individual to be more productive to reach organizational goal. The current work design in the X Hospital according to most nurses was effective, but it did not have any significant relation with the level of nurse compliance. It might be because the work design was not fully applied well by the nurses, thus affecting the level of nurse compliance in implementing IPSG. The research result was different from that of Wakefield (2008), Gelinas and Loh (2004), and Anugrahini et al., (2010), who state that if a nurse has good perception on work design, the nurse will comply in implementing patient safety guideline, because work design covers the depth and objective of each work which differentiate works from each other.

Reward had significant relation with nurse compliance in implementing IPSG 1 and IPSG 2, except for IPSG 5 and IPSG 6 in the X Hospital. Reward is an employee's right of performing work. Suitable reward encouraged nurses to work productively by increasing compliance to the implementation of IPSG 1 and IPSG 2. In the present study, rewards were both financial and non-financial. The research result supported the theories of Taba (2018) that reward will increase one's performance, but work motivation will be lowered if employee relation is not appreciated with equal reward. The result of the present study was also in line with that of Plots and Nelson (2007) who stated that nurses who received reward will be more compliant when working in the ICU (90%). In the present study, the rese-archers found that 74.5% (n= 76) of the nurses perceived the reward as suitable and was able to contribute to their compliance in implementing IPSG 1 and IPSG 2 (75% or 57 nurses and 77.6% or 59 nurses, respectively). Moreover, nurses working in the X Hospital had received suitable reward consistent with the jointly agreed internal regulations of the X Hospital, but there was perception that the reward was not fair because it was not consistent with the performance of each nurse. Financially, this was because people are never satisfied with what they got. Non-financially, recognition of achievement, promotion, career development, education, and training opportunity and compliment from nursing manager and hospital were expected to improve nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6.

Attitude had significant relation with the level of nurse compliance in implementing IPSG 1, IPSG 2, and IPSG 5, except for IPSG 6 in the X Hospital. Most nurses with negative attitude did not comply with the implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6. This was in line with the result of Setiyawati and Supratman (2008) that a significant relation was found between attitude and nurse compliance in preventing surgery wound infection. In this case, nurses with positive attitude will be more compliant in implementing measures to prevent surgery wound infection. In addition, Permana and Hidayah (2017) reported a relation between attitude and health worker compliance in implementing precaution standards for infection prevention. In this case, a health worker with negative attitude has lower chance of complying in implementing the precaution standards for infection prevention compared with a health worker with positive attitude. The effect of attitude on compliance in the implementation of IPSG 1, IPSG 2, IPSG 5, and IPSG 6 could be seen in nurse's view through four attitude dimensions, i.e., acceptance, response, appreciation, and responsibility (Wawan & Dewi, 2011). The analysis of the relation between nurses' view in four attitude dimensions and level of nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6, showed that most nurses had positive attitude, i.e., nurses in the X Hospital tended to act or like certain objects such as compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. The researchers assumed that the attitude of nurses in the X Hospital was affected by the leadership style of the room head because their position was considered important, suitable reward, and internal motivation. In the present study, researchers found that a positive nurse attitude did not have any re-

lation with nurse compliance in implementing IPSG 6. Moreover, the analysis showed that attitude could change on certain condition and terms. Moreover, attitude was not independent but was always related with a certain object. The object of attitude in the present study was the implementation of IPSG 6, in which nurses were required to comply with its implementation to prevent AE, i.e., risk of patient injury due to falls and other causes such as personal experience, culture, and emotion. Moreover, nurses' positive attitude did not have significant relation with nurse compliance in the implementation of IPSG 6.

Motivation had significant relation with the level of nurse compliance in implementing IPSG 1 and IPSG 2, except for IPSG 5 and IPSG 6 in the X Hospital. Meanwhile, most nurses with moderate motivation tended to be less compliant in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. This was in line with the result of Natasia et al. (2014), who stated that motivation has significant relation or effect on nurse compliance in performing standard nursing care in the ICU-ICCU of Gambiran Hospital in Kediri. In this case, nurses with high motivation are more compliant in performing SOP. High nurse motivation in Gambiran Hospital is affected by the reward. The effect of nurse motivation on compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 could be seen from nurses' view through three motivation dimensions, i.e., need for achievement, power or self-actualization, and affiliation (Sparks & Repede, 2016).

In the present study, the effect of nurses' view in the three motivation dimensions on the level of nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6 showed that most had strong motivation, which means that nurses in the X Hospital were driven to act or respond to certain needs, e.g., need to comply in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. Motivation is one of the ways to meet one's needs. If one has met certain needs, they will meet other higher needs. Noltemeyer et al. (2020) states that, in accordance with Maslow, if a need has been met by an individual, high-level needs will be the new needs to be met. In the present study, the motivation of X Hospital the was the drive to act based on the needs to implement IPSG 1, IPSG 2, IPSG 5, and IPSG 6, and this was a strong motivation. Strong motivation among X Hospital nurses could be seen from the data analysis based on the responses of the questionnaires. Of the three motivation dimensions, most nurses agreed with the statement items. According to the researchers' analysis, nurse motivation in the X Hospital was affected by the reward from hospital management because most nurses claimed that the current reward given by the hospital management was suitable for them. In the present study, the researchers found that nurse motivation did not have any relation with the level of nurse compliance in implementing IPSG 5 and IPSG 6, but based on data analysis, more than 50% of nurses with strong and moderate motivation comply with the implementation of IPSG 5, while most nurses did not comply with the implementation of IPSG 6, regardless of having a strong or moderate motivation. The researchers' analysis showed that if motivation was affected by certain needs, the nurse considered washing hands to prevent infection and reducing injury due to fall was not a priority.

There are several limitations in this study, namely: first is when make observations of data collection, if observations are made in the treatment room class 2 and class 3, observers can participate directly, so that data obtained quite valid, while for observation in the main class and VIP ward observer has difficulty taking data, because they are not directly involved, the observer only observes from a distance or the observer cooperates with the head of his room. Second, in this study there are several factors relates to the level of compliance in the implementation of IPSG that is not included in the research are marital status, resources, and perception. These three factors according to researchers can affect the results of this study, so the next researcher so that all three factors can be included in his research.

Conclusion

Age, gender, education, length of service, and work design do not have significant relation with the level of nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. Nursing service quality in the context of patient safety in the X Hospital is not affected by age, gender, education, length of service, and work design; thus, potential improvement can be done by improving the function and service supervision, in this case starting from room head. The leadership style of the room head, reward, motivation, and attitude have significant relations with the level of nurse compliance in implementing IPSG 1, IPSG 2, IPSG 5, and IPSG 6. Nursing service quality in the context of patient safety in the X Hospital is affected by the leadership style of the room head, reward, motivation, and attitude; thus, potential improvements include implementing consultative leadership style by room head considering the maturity level of the members and maintaining or even improving the current reward system because rewards influence one's performance and motivation.

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INFLUENCE OF ISLAMIC PHILOSOPHY ON THE FAITH AND PRACTICES OF PATIENTS WITH DIABETES MELLITUS AND ITS MUSCULOSKELETAL MANIFESTATIONS

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Abstract

Transcultural care is an important aspect of patient care. This review paper discusses the influence of Islamic philosophy on the faith and practices of Muslim patients with diabetes mellitus and its musculoskeletal manifestations. Relevant articles were searched from the electronic databases Cumulative Index of Nursing and Allied Health Literature, PubMed, ProQuest, and Science Direct using the keywords "Islamic philosophy, the influence of Islamic Philosophy in Muslim patients, religious practice during sick, fasting months, and sick." No time limitation was specified for article selection. The database search yielded 170 potential articles. The abstracts of these articles were screened, and 50 full-length manuscripts were obtained, reviewed, and analyzed for their relevance to the subject matter. Discussions rooted in the ontology, epistemology, and methodology of Islamic philosophy were described in detail to provide a sound understanding of its influence on Muslim patients. The ontology of Islamic philosophy is based on four important concepts, namely, the Unity of Allah, the Unity of Creation, the Unity of Thought, and the Unity of Man. The epistemological approach can help Muslim patients search for knowledge on the basis of ontology and three principles, namely, *Ilm' Yaqin, Ainul Yaqin, and Haqqal Yaqin*. The ontology and epistemology shape the methodology of Muslim patients' daily life -according to the Islamic concepts of the Five Pillars and Six True Faiths. The issues patients with diabetes mellitus and its musculoskeletal manifestations encounter usually arise when they need to perform obligations during fasting and prayers. Understanding Islamic philosophy in caring for patients with diabetes is important among healthcare professionals to provide appropriate care. Better healthcare services may be provided to Muslim patients if their specific needs are fulfilled according to their beliefs and culture.

Keywords: diabetes mellitus, Islamic philosophy, musculoskeletal manifestations, Muslim

Abstrak

Filosofi Islam Memengaruhi Iman dan Praktek Klien dengan Diabetes Mellitus dan Manifestasi Muskuloskeletalnya: Review*. Perawatan transkultural adalah aspek penting ketika memberikan perawatan kepada klien. Artikel tinjauan ini akan membahas tentang filsafat Islam yang memengaruhi keyakinan dan praktik klien diabetes Muslim. Artikel yang relevan dicari dari database elektronik Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, ProQuest, dan Science Direct. Kata kunci yang digunakan 'filsafat Islam, pengaruh Filsafat Islam pada klien Muslim, praktik keagamaan selama sakit, bulan puasa, dan sakit'. Tidak ada batasan waktu pada pemilihan artikel. Pencarian database mengidentifikasi sejumlah 170 artikel. Abstrak disaring dan 50 artikel lengkap diperoleh, ditinjau, dan dianalisis jika relevan. Diskusi rooting pada ontologi, epistemologi, dan metodologi filsafat Islam dijelaskan secara rinci untuk memahami pengaruhnya terhadap klien Muslim. Ontologi filsafat Islam didasarkan pada empat konsep penting; Kesatuan Allah, Kesatuan Ciptaan, Kesatuan Pemikiran, dan Kesatuan Manusia. Pendekatan epistemologis membantu klien Muslim untuk mencari pengetahuan berdasarkan ontologi dan tiga prinsip (Ilm Ya Yaqin, Ainul Yaqin, dan Haqqal Yaqin). Ini telah membentuk metodologi klien Muslim dalam kehidupan sehari-hari berdasarkan pada Islam Lima pilar dan Enam Iman Sejati. Masalah klien dengan diabetes mellitus dan manifestasi muskuloskeletalnya biasa-nya muncul setiap kali melakukan kewajiban saat puasa dan berdoa. Kebutuhan mereka untuk mengamati kepatuhan pengobatan, kontrol diet, doa sehari-hari, dan bagaimana metodologi memengaruhi kehidupan sehari-hari mereka. Pemahaman filosofi Islam dalam merawat klien diabetes adalah penting di antara para profesional kesehatan untuk memberikan perawatan yang tepat. Diharapkan bahwa layanan kesehatan yang lebih baik untuk klien Muslim jika kebutuhan spesifik keyakinan dan budaya terpenuhi.*

Kata kunci*: diabetes mellitus, filsafat Islam, manifestasi muskuloskeletal, Muslim*

Introduction

Transcultural issues are among the greatest challenges faced by healthcare providers during delivery of care. Understanding transcultural matters will help healthcare providers in addressing the needs of patients of different ethnicities or with different beliefs. Healthcare delivery may pose challenges when healthcare providers are unable observe differences in transcultural matters (Maier-Lorentz, 2008). Thus, healthcare providers and patients should work together toward reaching realistic goals of care by finding commonalities in their transcultural views.

According to Clarke (2017), personal belief is a transcultural issue that often occurs during delivery of care. The beliefs of healthcare providers may differ from those of their patient. Therefore, if healthcare providers have insights into their patients' beliefs, they may be better equipped to provide the necessary care. Besides Christianity, Buddhism, and Hinduism, Islam is one of the major religions of the world (Pew Research Center, 2019). Discussions on the influence of Islamic philosophy on the Malaysian medical experience will be helpful in understanding the role of healthcare providers providing care toward patients with diabetic. Certain practices rooted in Islamic law may affect the everyday care of patients. For example, a patient with diabetic foot ulcers may want to fast during Ramadan. Therefore, some routine treatments may need adjustment after a proper assessment is carried out by the patient's doctor. Healthcare providers may have different views on this practice if they do not understand the importance of fasting during Ramadan to Muslim patients.

The availability of halal (permissible) food is another issue faced by Muslim patients. The definition of halal for non-Muslim healthcare providers may be different from that understood by Muslim doctors. Some doctors may consider food halal so long as it is not served with pork. However, halal food actually refers to food prepared in compliance with Shariah law; this means the origin of the food should be free from forbidden elements and be prepared according to the concepts of hygiene, sanitation, and safety (Baharuddin, Ahmad Kassim, Nordin, & Buyong, 2015). Publications directly discussing on the influence of Islamic philosophy on the faith and practices of Muslim patients during hospitalization are limited. Thus, the present review focuses on the effects of the ontology, epistemology, and methodology Islamic philosophy on Muslim patients.

The situation of patients with diabetes mellitus and its musculoskeletal manifestations is described in this article to discuss how Muslim life is affected during hospitalization. Diabetes is often associated with pain, disability, and morbidity (Merashli, Chowdhury, & Jawad, 2015). Moreover, the global prevalence of diabetes and its musculoskeletal manifestations has rapidly risen over the years. The total number of patients with diabetes mellitus worldwide is expected to reach 642 million in 2040 compared with the current figure of 415 million in 2015 (International Diabetes Foundation (IDF), 2015). Therefore, the impact of Islamic philosophy on the faith and practices of Muslim patients are elaborated in terms of sickness, cleanliness, stress management, food, and medical management.

Methods

The effects of Islamic philosophy on the care of diabetes mellitus and its musculoskeletal manifestations are reviewed by adopting the SPIDER strategy reported by Cooke, Smith, and Booth (2012). In the SPIDER strategy: 1) S means sample, which refers to the populations of Muslim patient and Muslim diabetic patients; 2) PI means phenomenon of interest, which is defined as care for Muslim patients during sickness or hospitalization; 3) D means design of the study; 4) E means evaluation or outcomes being assessed, that is, the care provided to Muslim patients; and 5) R means research type, which is means there are no restric-

tion towards quantitative, qualitative or mixed method articles retrieval.

The electronic databases Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, ProQuest, and Science Direct were searched to obtain articles relevant to this work. The following key words were used to extract the relevant literature: "*Islamic philosophy*, *influence of Islamic philosophy in Muslim patients, religious practice during sick, fasting months, and sick*." No time restriction was specified for article selection. All of the articles were screened through the abstract prior to be included for analysis.

Results

The obtained literature was analyzed by applying the following focus review question: "What are ontology, epistemology, and methodology of Muslim patients affect their Islamic faith and practices during hospitalization?" An article was included in the review of its full text was available, if it was written in English, and if its study design was not restricted. Articles with only their abstract available and that did not answer the focus review question were excluded from the analysis.

A total of 170 articles were extracted from CINAHL, PubMed, ProQuest and Science Direct. Among 170 articles extracted, only 50 full articles were considered eligible for review and analysis according to the inclusion criteria of this study. These articles varied from intervention studies to narrative review articles.

The findings of the analysis were discussed in systematic process for better understanding of Islamic philosophy according to traditional narrative review. The discussion of Islamic philosophy was delineated according to subtopic of ontology, epistemology and methodology. In addition, the implication of Islamic philosophy on faith and practices were discussed according to the following concepts: sickness, cleanliness, stress management, food, and medical management, in order to get clearer picture for the understanding of its impact on faith and practices among Muslim patient.

Discussion

Ontology of Islamic Philosophy. Islamic philosophy is based on four concepts, namely, the Unity of Allah (Azram, 2011; Hanefar, Sa'ari & Siraj, 2016), the Unity of Creation, the Unity of Thought, and the Unity of Man (Azram, 2011). The concept of Unity of Allah states that Allah (the Almighty God) is the only Creator of the universe (Azram, 2011); He is the absolute one, not two or three. If an individual does not believe in Allah, his search for knowledge may be impeded by a lack of faith, blind imitation (Abdullah, 2015; Azram, 2011) and belief in superstition (Azram, 2011). A lack of faith in Allah may lead to the inability to search for knowledge because of one's inability to under-stand the message of the Al-Quran. This inability could lead a person to blind imitation or "taqlid," which means the person blindly follows ideas and knowledge without know whether they are right. The last one is believed in superstition, start to believe inappropriate and deviated thing such as believe to shaman.

The Unity of Creation underlies two principles, namely, determinism, which means every cause has an effect, and uniformity of nature, which means similar causes result in similar effects (Azram, 2011). These principles are observed among patients with diabetes mellitus. For example, diabetic foot ulcers may occur as a result of peripheral neuropathy and could lead to Charcot neuroarthropathy, a progressive manifestation of a deteriorating musculoskeletal system. The Charcot neuroarthropathy does reflecting the principle of determinism. Another principle, similar cause resulting in similar effects can be observed in the body's ability of controlling blood glucose level. If the blood glucose level is too high, it may lead to hyperglycemic state before other musculoskeletal manifestation shown.

The Unity of Thought. There are two types of knowledge in Islamic philosophy namely as revelation and reasoning/natural phenomena (Azram, 2011; Bakir, 2011). Revelations are the knowledge given by Allah through the Al-Quran through Prophet (Peace Be Upon Him (P.B.U.H.). Reasoning is the knowledge obtained from the senses, deep thinking, and perception. In the reasoning knowledge, the causality of knowledge is created by Allah, however, human rationalized the knowledge based on their reasoning. Al-Ghazali, a Muslim philosopher, described two types of knowledge, namely *shari* (revelation) and *aqli* (reasoning).

The last concept of Islamic philosophy known as the Unity of Man (Azram, 2011). Islam considers Adam to be the first human created by Allah and has been thought the "name of things which is symbolizing the knowledge transferred to him as human." Allah asked the angels to prostrate to Adam due to his superior knowledge, not his piety. This belief reveals the importance of knowledge and the responsibilities for human beings with this knowledge. The role of humans in the universe is to serve Allah (Hanefar, Sa'ari & Siraj, 2016). Humans must make full use of knowledge both in physical and spiritual as one of the ways to achieve permanent life in the hereafter (Mohamad, Abd Razak & Mutiu, 2011).

Epistemology of Islamic Philosophy. Epistemology in philosophy is regarded as how the knowledge can be derived and justified. Some areas in Islamic philosophy are related to epistemology. For example, the source of knowledge is either revelation or derivation (Athar, 2008). Revealed knowledge or *al-Wahy* is derived from Allah through the holy book, Al-Quran. Derived knowledge is acquired through the senses, research, and deep thinking.

Another aspect of epistemology in Islamic philosophy is based on three principles known as *Ilm' Yaqin*, *Ainul Yaqin*, and *Haqqul Yaqin* as source of knowledge derivation (Alias, 2017; Azram, 2011). *Ilm' Yaqin* or knowledge of certainty is derived from what others say. For example, one's knowledge of the musculoskeletal manifestations of diabetes mellitus, for instance, hardening, and cracking of the skin of the foot skin and peripheral neuropathy, is derived from what a doctor says. *Ainul Yaqin* refers to the eye of certainty, which means knowledge is derived from what one sees. For example, one can actually see that a patient has the disease. Finally, *Haqqul Yaqin* refers to the truth of certainty. For example, one can test for higher-than-normal blood sugar levels and read the results of a radiograph to confirm Charcot foot. Therefore, the belief that a patient with diabetes may have musculoskeletal manifestations is based on what one sees. The principles in the epistemology of Islamic philosophy are shown in staggered; bottom down from *Ilm' Yaqin*, *Ainul Yaqin,* and *Haqqul Yaqin* (Figure 1).

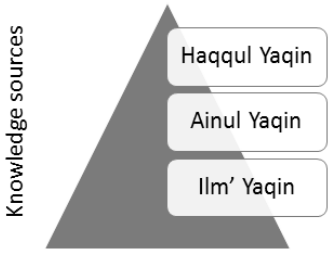

Figure 1. The Principles in the Epistemology of Islamic Philosophy

Methodology in Islamic Philosophy. The purpose of Muslim life is to attain happiness by serving Allah and the ultimate goal is a way to End the journey in hereafter in a good side (Mohamad, Abd Razak, & Mutiu, 2011). The methodology of Islamic philosophy is based on the Five Pillars and Six True Faiths. The main sources of Islamic philosophy as a way of life for Muslim are the Al-Quran, Sunnah (the prophet's way of life), and Islamic jurisprudence.

The Five Pillars of Islamic philosophy are *syahadah* (a vow of faith that Allah is the only God and Muhammad is the Messenger of Allah), praying five times daily, fasting for the

month of *Ramadan*, paying *zakat* (a certain amount based on guidelines), and performing pilgrimage at Mecca if able. Figure 2 shows a summary of the Five Pillars.

The Six True Faiths is another important component of Muslim philosophy. There are six elements in Six True Faiths. They are as follows that believe in; Allah, angel, prophet as a messenger of Allah, Kitab (especially Al-Quran) as word of Allah which guide the Muslim life, *Qada' and Qadar* (every incident has been decided by Allah for whatever reason), and Judgment Day (hereafter).

The Five Pillars and Six True Faiths complement other in the Muslim life. The Five Pillars are external beliefs that supplement the internal beliefs provided by the Six True Faiths (Figure 3). These principles are based on the concept of humans having material (physical) and immaterial (soul) components in Islam.

Muslims may use Islamic Law to guide their life. The accountability ruling is obligation (*wajib*), recommended (*sunat*), permissible (*halal*), detested (*makhruh*), and prohibited (*haram*). Obligations refer to actions that must be carried out in Muslim life, such as performing the Five Pillars or preserving life. The recommended actions refers to practices a Muslim may opt to do, such as performing additional prayer or fasting. Permissible actions refer to practices a Muslim may do. Detested actions refer to practices Muslims are not encouraged to do but can do, for example, eating using the left hand. Finally, prohibited actions refer to practices Muslims cannot do. For example, Muslims cannot drink alcoholic beverages or eat pork, any pork product, or its derivatives.

Implication of Six True Faiths and Five Pillars for Patients with Diabetes Mellitus and Its Musculoskeletal Manifestations. Performing the Five Pillars is a must, but the practice is flexible according to the patient's condition. For example, Muslims are required to perform five daily prayers. If the condition of patients is deteriorating, they can pray as many times as their condition allows. If unable to stand for prayer, one can pray while sitting. If still unable, one can pray while lying down or by moving their eyes. If they believe that angels document all of their actions, Muslims can still practice their faith in many ways.

Patients with diabetes mellitus and its musculoskeletal manifestations must seek the advice of their physician prior to practicing fasting during Ramadan (Pathan et al., 2012). Hassanein

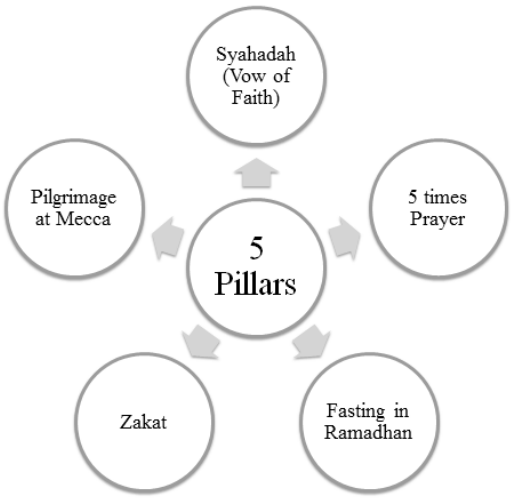

Figure 2. Summary of Five Pillars in Islamic Philosophy

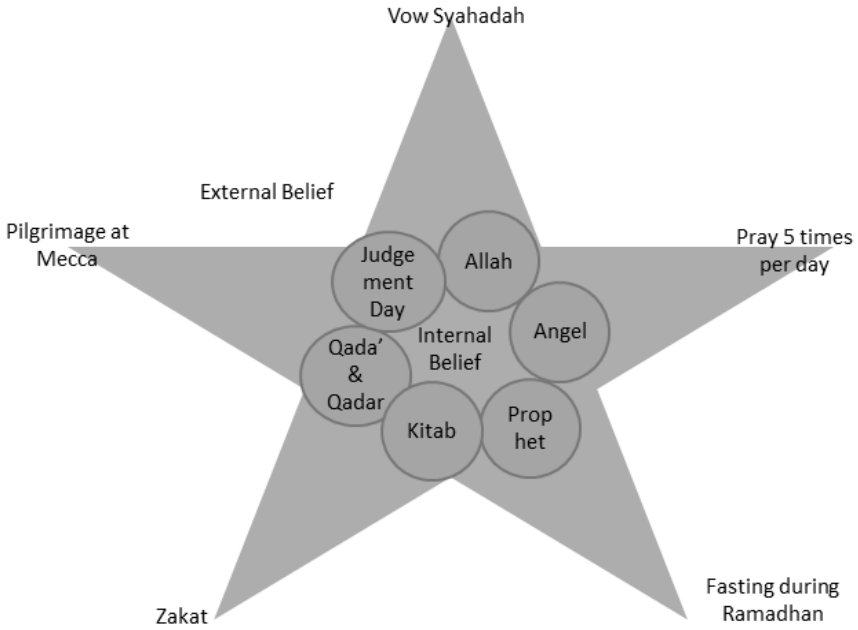

Figure 3. Balance of the Five Pillars and Six True Faiths

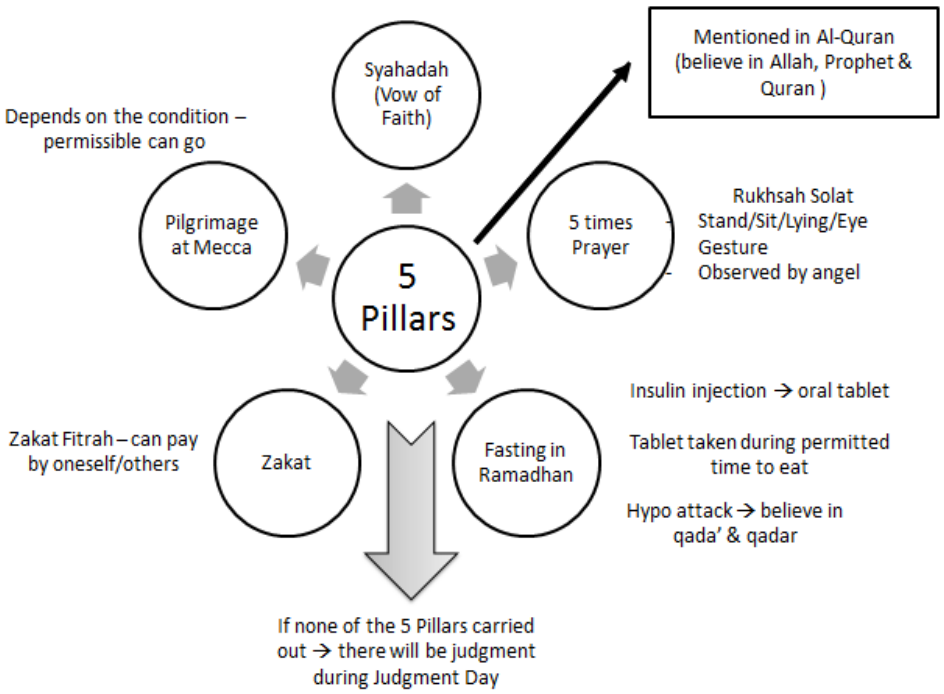

Figure 4. Summary of the Impact of the Six True Faiths and Five Pillars

et al. (2017), in collaboration with the IDF, produced a practical guideline that could help healthcare professionals manage patient with diabetes mellitus and its musculoskeletal manifestations during the fasting month. Tablet/ oral medication can be taken within the permitted time to eat; however, if the patient develops a hypoglycemic attack during fasting,

the fast can be broken. Patients must consult with their physician prior to fasting so that they can be assessed for suitability to practice fasting (Hassanein, 2016). The patient has done his best to fast but his condition does not permit him to continue. Thus, the patient may not be frustrated or feel guilty for not doing his task as Muslim (fasting) because the *Qada' and Qadar* has taken place which has put him to break fasting due to his condition.

A Muslim believes in Judgment Day. Therefore, if Muslims do not perform the Five Pillars accordingly, their destiny will be determined by Allah on the basis on their overall actions. Figure 4 summarizes of the implication of the Six True Faiths and Five Pillars in Muslim life.

Implication of Islamic Philosophy on the Following Aspects: Sickness, Cleanliness, Stress Management, Food, and Medical Management

Sickness. Allah tests his subjects through sickness to earn a great reward. Sickness also serves as a form of atonement or compensation for sins that have been committed (The Faith, 2016). It is believed that the sickness may lessen the sin according to the patient's condition. In Islam, sickness, patience, and pain are always correlated. For example, patients with diabetic foot ulcer may bear the pain and discomfort of the wound, thereby strengthening their faith in Allah. They may strongly believe that the ulcer is a test from Allah and must bear its burden. Patients may sick and get treatment and leave Allah to decide on their recovery.

Cleanliness. Cleanliness is very important concept for a Muslim patient and constitutes part of the Muslim faith. Mizan al-Hikmat XE "Books: Mizan al-Hikmat", (v.5, p. 558) as cited in Kiani and Saeidi (2015) stated that cleanliness is half of the Muslim faith. Cleanliness is divided into two major components, namely, physical and environmental; some literature also includes a spiritual component. In the physical aspect, the body must always clean. For instance, if a Muslim patient with diabetes mellitus and its musculoskeletal manifestations wants to pray, he must first perform ablution. A nurse could assist the patient by providing water spray or *tayammum* (if required) to perform the ablution and provide clean clothes.

Muslim patients should pay attention to their physical cleanliness. Cleanliness can protect patients from infection, especially that of diabetic wounds. If a diabetic patient maintains a clean body, the risk of infection may decline (Aiello, Larson, & Sedlak, 2008). Islam encourages maintaining good personal hygiene as a part of Muslim life. Patients with diabetes and musculoskeletal manifestations, such as a foot ulcer, need a clean environment prior to initiating prayers. Nurses can assist patients by providing clean bed sheets when they become soiled with blood or replace wound dressings regularly. Such changes need not be done every time the patient must begin prayers as long as the nurse assesses the cleanliness of the patient's environment and changes wound dressings whenever necessary.

Stress Management. Stress management is another aspect of patient care that may benefit from considering the Muslim perspective. Diabetes and stress are well correlated. Hilliard et al. (2016) found that chronic diabetes is strongly associated with HbA1c level. HbA1c levels have been observed to significantly improve among patients with type 2 diabetes mellitus after undergoing stress management training (Zamani-Alavijeh, Araban, Koohestani, & Karimy, 2018). Many strategies are used to combat stress in Islam. Achour, Bensaid, and Mohd Nor (2015) cited religiosity, belief, trust in God, prayer, forbearance, supplication, recitation of the Al-Quran, remembrance of God, patience, and thankfulness as among the strategies often employed by Muslims to address life stressors. Muslim patients can better cope with their illness when they place their trust and belief in Allah. Al-Bukhari stated (as cited in Fathi, 2019): *"Abu Hurairah (May Allah be pleased with him) narrated that the Messenger of Allah (P.B.U.H)*

said; "A strong believer is better and dearer to Allah than a weak one, and both are good. Keenly pursue what benefits you, seek help only from Allah, do not give up. If something befalls you, do not say, 'If only I had done otherwise.' Rather say, 'Allah so determined and did as He willed,' for 'if only' opens the door to Satan's work."

Food and Medical Management. Food and medical management are important considerations for Muslim patients. for the food provided to Muslims must be obtained from *halal* sources, which means the food prepared should be free from pork, pork products, or its derivatives. Moreover, the meat prepared should come from an animal that has been slaughtered according to Islamic practice. If the meat does not abide with the Islamic practice during slaughtered, it cannot be consumed by Muslim patients even if it does not contain pork. Similarly, if the pork is slaughtered according to Islamic practice, the meat still cannot be consumed because it is considered *haram* (forbidden) for Muslims. The Al-Quran (6: 145) clearly says: *"I do not find within that which was revealed to me [anything] forbidden to one who would eat it unless it be a dead animal or blood spilled out or the flesh of swine – for indeed, it is impure…"*

Some medication may be derived from porcine sources. As earlier, similar to the case of food in Islam, the root of law is still haram. However, haram medication may be used for Muslim patients in emergency situations. An emergency condition is defined as a person in a life-or-death situation. The website of the Ministry of Health Malaysia (2016) explains the use of halal and haram medicines from the Islamic perspective. Wahbah al-Zuhaili, a professor of Islamic law at Damascus University, define an emergency situation as follows: "*An occurrence to a person, a dangerous situation or severe distress, which may lead to injury or illness to life, body, dignity, sense or property and everything connected to it. At the time, it is a must to conduct haram or abandon the mandatory or delay the time, in order to prevent harm from occurring by consideration within the scope of Islamic law*."

Dr. Yusuf al-Qardawi, a renowned Islamic scholar, reminds Muslim not to take for granted the leniency provided for the non-halal products and medication. In Malaysia, for example, some requirements were set by ulama' (Muslim scholars) and the National Fatwa Council Malaysia (Ministry of Health Malaysia, 2016) as follows: (1) an emergency really occurred and it is not something that is uncertain. In other words, it already happens or exists where there is damage or illness to five general principles (religion, life, intelligence, linage and property) or the occurrence of damage has been confirmed. This must be made based on strong conviction which is led by experience or knowledge; (2) someone in an emergency situation is against the order or prohibition of Islamic law, or there is no requirement by the Islamic law to eliminate the harm except for things that is banned or prohibited; (3) efforts have to be made to ensure that the present halal materials could not prevent the harm from occurring to patients; (4) the usage of haram materials is a necessity; (5) during treatment, the usage of haram materials must be recommended, ensured and approved by doctors or Muslim health professionals who are fair, believed to practice its religion and beliefs and also have knowledge in that field.

In summary, Muslim patients require halal food and medication. However, under certain condition, haram medications may be used. Patients with diabetes, for example, must not use insulin from bovine sources; instead, an alternative type of insulin not obtained from bovine derivatives is advised.

Implication of Islamic Philosophy toward The Nursing Practice. When nurses or healthcare professionals understand the needs and beliefs of Muslim patients, improved care may be provided. Knowledge of Islamic philosophy may also help establish good rapport and

nurse–patient relationships. In this way, nurses can embrace the needs of different patients according to their religious practices. Hospital administrators may develop improved healthcare systems by providing the appropriate guidelines in line with the needs of Muslim patients. Because newly graduated nurses may have minimal experience, these guidelines may help them support the needs of their Muslim patients.

Conclusion

In conclusion, understanding Islamic philosophy will provide direction for improving patient care and nurse satisfaction. Understanding Islamic philosophy is important among healthcare professionals to provide appropriate care for patients with diabetes and musculoskeletal manifestations. Establishing the appropriate guidelines enhance support, and increase the quality of life, spiritual, and social well-being of Muslim patients. Better healthcare services may be provided to Muslim patients if their specific needs are fulfilled on the basis of their beliefs and culture is fulfilled. However, further exploration is needed improve the understanding of how Islamic concepts can be related to health.

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PERCEPTIONS TOWARD CONSIDERING NURSING AS A CAREER CHOICE AMONG SECONDARY SCHOOL STUDENTS

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Abstract

Demand for a nursing career in Malaysia has increased, although it has not been a popular course of choice among students. Understanding the perceptions of students about nursing may help identify any misconception toward the profession and their consideration to choose nursing as a career. This study aimed to identify the perceptions of secondary school students about nursing and their potential interest in joining a nursing career. A cross-sectional study using convenience sampling was conducted among 155 students by administering a High School Students Self-Administered Questionnaire from three selected secondary schools in Kuantan, Pahang Malaysia. Overall, the respondents positively perceived the nursing profession, although several parts were viewed negatively. Despite having a positive notion about nursing, only 18.1% of the respondents were interested to select nursing as their career and a majority of them were women. In conclusion, no significant difference in perceptions about nursing and consideration to choose nursing as a career was found. Nevertheless, the image of nurses and a nursing career need to be improved in the eye of students and societies. In addition, the students were not aware of the benefits of nursing with several misconceptions of genders and doctor's aid. Overall, the status of nursing in Malaysia should be enhanced to make it a valuable career.

Keywords: career, choice, nursing, perception, secondary school, students

Abstrak

Persepsi terhadap Mempertimbangkan Keperawatan sebagai Pilihan Karir di antara Siswa Sekolah Sekunder. *Permintaan untuk karir keperawatan di Malaysia mengalami peningkatan, meskipun belum menjadi pilihan populer di kalangan siswa. Pemahaman mengenai persepsi siswa tentang keperawatan dapat membantu mengidentifikasi kesalahpahaman terhadap profesi dan pertimbangan mereka untuk memilih keperawatan sebagai karier. Penelitian ini bertujuan untuk mengidentifikasi persepsi siswa sekolah menengah tentang keperawatan dan potensi minat mereka untuk memilih karir keperawatan. Sebuah studi cross-sectional menggunakan convenience sampling dilakukan pada 155 siswa dengan High School Students Self-Administered Questionnaire dari tiga sekolah menengah di Kuantan, Pahang Malaysia. Secara keseluruhan, responden memandang positif profesi keperawatan, namun beberapa bagian dipandang negatif. Meskipun memiliki gagasan positif tentang keperawatan, hanya 18,1% dari responden tertarik untuk memilih keperawatan sebagai karir mereka dan mayoritas dari mereka adalah perempuan. Kesimpulannya, tidak ada perbedaan signifikan dalam persepsi tentang keperawatan dan pertimbangan untuk memilih keperawatan sebagai karier. Namun demikian, citra perawat dan karier keperawatan perlu ditingkatkan di mata siswa dan masyarakat. Selain itu, siswa tidak menyadari manfaat keperawatan dengan beberapa kesalahpahaman tentang gender dan bantuan dokter. Secara keseluruhan, status keperawatan di Malaysia harus ditingkatkan untuk menjadikannya karier yang berharga.*

Kata Kunci: *karier, keperawatan, persepsi, pilihan, sekolah menengah, siswa*

Introduction

The nursing profession faces a greater staffing shortage problem compared with other health-care professionals. According to World Health Organization (2014), the shortage of healthcare workers is expected to reach 12.9 million by 2035. Nurses represent more than 50% of the current shortage. The shortage of nurses in the healthcare sector is a major problem because nurses are the front liners in the healthcare sector and make up the largest section of health-

care professionals. Effective recruitment and retention strategies are needed to overcome nursing shortage. However, nursing is a less popular course of choice than other healthcare professionals; as a result, recruiting people into nursing has become challenging (Neilson & Jones, 2012). One factor affecting the students' decision to select nursing as their future career is their perceptions toward the profession.

In Malaysia, people have higher respect for the medical profession than other healthcare professions. A similar situation can be observed in Pakistan, where students who receive higher marks in school prefer other healthcare courses, especially medicine, over nursing (Saad, Fatima, & Faruqi, 2011). Stereotypes in nursing include gender stigma and low probability to achieve high qualifications, fulfilling careers, and gain parents' support (Liaw, Wu, Chow, Lim, & Tan, 2016). Public also perceived nursing as a low-paying and low-status job (Wu et al., 2015). Moreover, nurses only follow the doctors' instructions (Williamson, 2012), although they collaborate in a team. Other negative notions about nursing are working with dirty stuff, caring for dying patients, and handling blood and bodily stuff. In general, all healthcare professionals and providers, including the laboratory staff, are dealing with that type of work.

Negative views toward a nursing career have significantly restrained students to choose nursing as a career (Wu et al., 2015). Interestingly, nursing is a recognized and licensed healthcare profession with a regulatory body responsible to maintain a set of standards. Nurses can work anywhere around the world. Nevertheless, people have less preference for nursing. Hence, this study aimed to identify the perceptions of secondary school students about nursing and their potential interest in considering nursing as their career choice.

Methods

A cross-sectional study was conducted among 155 students from three selected schools in Kuantan using convenience sampling. A High School Students Self-Administered Questionnaire specifically designed to identify the perception of nursing was used. It contained a Likert scale involving 47 items that can be categorized into four subcategories, namely, socioeconomic status of nursing, nursing education and career potential, nursing professionalism, and nursing working conditions. A pilot study was conducted to test the validity and reliability of this instrument (Cronbach's alpha = 0.87). Mean score > 2.5 indicates positive perceptions or agreement, while < 2.5 mean score indicates negative perception or disagreement.

This study was approved by the Kulliyyah of Nursing Post Graduate Research Committee, the International Islamic University Malaysia Research Ethics Committee, the Ministry of Education, and the State Education Department of Kuantan.

Statistical Package Social Science Version 20.0 was used to analyze the data. Descriptive analysis was used to identify the perception of nuring. Independent t-test was used to find the differences between perceptions of nursing and gender, whereas one-way ANOVA was used to identify the differences in perceptions toward nursing among different races and levels of academic performance. The findings were indicated as statistically significant if the p-value < 0.05.

Results

As shown in Table 1, 43.9% (n= 68) male students and 56.1% (n= 87) female students were involved in this study. A majority of the respondents were Malay (72.3%, n= 112) , followed by Chinese (22.6%, n= 35) and Indian (5.2%, n= 8). For academic performance, most (n= 114. 73.5%) of the students were on average level. Then, 19.4% (n= 30) students showed poor academic performance, and only 7.1% (n= 11) students achieved good academic performance. Regarding the sources of information toward the nursing profession, media (22.5%, n= 90),

family (17.8%, n= 71), and teacher/counselor (17.5%, n= 70) were the top three most selected answer. The majority of respondents (43.9%) claimed that they will not choose nursing, and only 18.1% of them said that they would consider nursing as their future career. About 38.1% students stated that they were unsure about whether they would consider nursing or not.

For the socioeconomic status of nursing as in Table 2, the respondents had very positive perceptions. They viewed nursing to be respected (M= 3.30, SD= 0.56), important in keeping people well (M= 3.58, SD= 0.53), and appreciated (M= 3.28, SD= 0.54). Moreover, respondents also disagreed with statements that nurses are similar to secretaries (M= 2.52, SD= 0.66) and are equal to doctors (M= 2.52, SD= 0.77). The most negative perception was nursing is a profession only for women (M= 1.65, SD= 0.67).

For nursing education and career potential, positive perceptions in this category were related to opportunities in nursing for men and women (M= 3.50, SD= 0.60), nurses make an important contribution to society (M= 3.39, SD= 0.59), and nurses are team members with doctors and others (M= 3.25, SD= 0.65). These data reflected

Table 1. Demographic Data of Respondents

Variable		Frequency (n)	Percentage (%)
Gender	Male	68	43.9
	Female	87	56.1
Race	Malay	112	72.3
	Chinese	35	22.6
	Indian	8	5.2
	Others	0	0
Level of Academic Performance	Good	11	7.1
	Average	114	73.5
	Poor	30	19.4
Source of Information Regarding Nursing Profession	Family	71	17.8
	Relatives	41	10.2
	Peers	30	7.5
	Teacher and counselor	70	17.5
	Nurse you know	38	9.5
	Hospital experiences with nurses	58	14.5
	Media	90	22.5

Table 2. Students' Perceptions of The Socioeconomic Status of Nursing

Description	Mean	SD
Nursing is a respected profession	3.30	0.56
Nurses are important to keep people well	3.58	0.53
Nursing is a high-status occupation	3.01	0.47
Nurses are appreciated	3.28	0.54
Nursing offers job security	2.92	0.65
Nurses are paid very well	2.75	0.63
Nurses can always get jobs	2.73	0.67
Nurses are the same as secretaries	2.52	0.66
Nurses are equal to doctors	2.52	0.77
Nursing is a profession only for women	1.65	0.67
Total Mean Score	2.83	

Table 3. Students' Perceptions of Nursing Education and Career Potential

Description	Mean	SD
Nurses are team members with doctors and others	3.25	0.65
Nurses make an important contribution to society	3.39	0.59
Nursing can be a pathway to study medicine	3.29	0.56
Nursing offers opportunities for men and women	3.50	0.60
Nurses are well educated	3.27	0.64
Nurses have an opportunity for career advancement in nursing	3.17	0.64
Nursing offers opportunities for personal growth and development	2.74	0.67
Nurses are effective health teachers	3.07	0.57
Getting a degree in nursing requires many years of study	3.03	0.69
Nurses can choose different areas of specialty in nursing	3.00	0.70
Studying nursing is difficult	2.72	0.84
Nurses are active in health care research	3.11	0.65
Nurses can teach in college or university	2.70	0.75
Nurses are leaders	2.44	0.75
Studying nursing is reasonably priced	2.80	0.67
Nurses follow directions from other people	2.35	0.73
Nurses obey doctors' orders	1.75	0.65
Total Mean Score	2.92	

Table 4. Students' Perceptions of Nursing Professionalism

	Mean	SD
Nurses help people	3.48	0.60
Nurses are important when you are sick	3.44	0.61
Nursing is a caring profession	3.38	0.64
Nurses are powerful people	2.37	0.68
Nurses use special skills and knowledge	3.29	0.59
Nursing is a challenging profession	3.19	0.63
Nurses influence national health policy and legislation	2.85	0.60
Nursing is an independent profession	2.28	0.70
Nurses make decisions about patient care themselves	2.34	0.82
Nurses lack control of their own practice	2.48	0.72
Total Mean Score	2.91	

Table 5. Students' Perceptions of Nursing Working Conditions

	Mean	SD
Nurses manage large groups of people	2.57	0.71
Nursing is a very busy job	3.10	0.72
Nurses master high technological instruments	2.79	0.76
Nurses work with people rather than things	3.07	0.71
Sometimes nurses have to perform unpleasant tasks to care for their patients	3.11	0.73
Nurses are exposed to patients with dangerous diseases	3.05	0.76
Nursing includes much technical work	2.36	0.72
Nurses work in a dangerous environment	2.61	0.81
Nurses can choose days and hours they want to work	3.26	0.71
Nursing is easy work	3.02	0.74
Total Mean Score	2.90	

Table 6. Nursing Perceptions Subcategory and Total Summary Score (Mean [SD]) by Gender

Subcategory	Gender		p	Level of Academic Performance			p
	Male (n= 68)	Female (n= 87)		Good (n= 11)	Average (n= 114)	Poor (n= 30)	
Socioeconomic Status of Nursing	27.97 (2.50)	28.47 (2.09)	0.177	27.09 (2.47)	28.30 (2.17)	28.50 (2.60)	0.306
Nursing Education and Career Potential	48.63 (4.43)	50.28 (4.60)	0.026	48.64 (5.78)	49.52 (4.45)	50.03 (4.72)	0.921
Nursing Professionalism	28.59 (2.90)	29.49 (2.87)	0.054	28.18 (3.03)	29.08 (2.62)	29.50 (3.82)	0.607
Nursing Working Conditions	29.03 (2.72)	28.89 (3.24)	0.768	26.64 (2.77)	29.02 (3.01)	29.53 (2.79)	0.026
Total Score	134.22 (8.76)	137.13 (10.02)	0.060				

the misperceptions or negative perceptions of the respondents about nursing when they viewed nursing as a pathway to study medicine, namely, nurses are not leaders (M= 2.44, SD= 0.75) and only follow directions from other people (M= 2.35, SD= 0.73) and doctors (M= 1.75, SD= 0.65). Table 3 shows the overall results.

Table 4 shows the perceptions of nursing professionalism. Respondents truly realized that nurses are the ones who help people (M= 3.48, SD= 0.60), nurses are important when people are sick (M= 3.44, SD= 0.61), and that nursing is a caring profession. Moreover, they did not value nursing as an independent profession (M= 2.28, SD= 0.70) and perceived nurses to have lack of control over their own practice (M= 2.48, SD= 0.72). They also did not view nurses as powerful people (M= 2.37, SD= 0.68) and healthcare providers who are able to make decisions about patient care by themselves (M= 2.34, SD= 0.82).

Table 5 shows nursing working conditions where respondents realized the fact that nursing is a very busy job (M= 3.10, SD= 0.72). They perceived nurses to perform unpleasant tasks to care for their patients (M= 3.11, SD= 0.73) and work with people rather than objects (M= 3.07, SD= 0.71). The only misperception toward nursing working conditions was that nursing is a profession that does not include much technical work (M= 2.36, SD= 0.72).

The association between gender and perceptions of nursing is shown in Table 6. No statistically significant differences were found between the two respondent genders toward the perception about nursing, except for nursing education and career potential (p= 0.026). Meanwhile, the level of academic performance (good, average, and poor) was significantly associated with the per-ceptions about nursing in the subcategory of nursing working conditions (p= 0.026). Table 6 shows the overall association.

Discussion

This study found that the secondary school students in three selected schools in Kuantan had overall positive perceptions toward the nursing profession. The notions toward nursing showed a positive change than many years ago when they were condescending toward the nursing profession (Al Kandari & Ogundeyin, 1998). In terms of the socioeconomic status of nursing, the students perceived nursing as a well-respected profession that is very important in keeping people well. These results are similar to the reports by Jan and Sikander (2012) that nursing is a respected occupation, nurses are responsible for the people they take care of, and nurses are kind and compassionate people. Another study

conducted in Saudi Arabia stated that the respondents agreed nurses are responsible for the people they take care of (Lamadah & Sayed, 2014). However, a majority of the respondents disagreed that nurses are kind and compassionate people (Keshk, Mersal, & Al Hosis, 2016). Secondary school students also recognized that nursing offers job security and nurses are paid very well and always get job, consistent with other studies that highlight good employment opportunities and job security (Keshk et al., 2016; Liaw et al., 2017).

Nursing is still suffering from the gender stigma created by the community themselves. This cultural influence also has been reported in many studies involving Malaysian context (Aris, Sulaiman, & Hasan, 2019; Sharif, Hasan, Jamaludin, & Firdaus, 2018). This study also found that students thought that nursing is a profession only for women. Similarly, previous research by Jan and Sikander (2012), Liaw et al. (2017), and Al-Mahmoud and Mullen (2013) indicated that only women should be nurses. However, Keshk et al. (2016) disagreed with this point. They believe that nursing is a career suitable for both genders.

Regarding nursing education and career potential, the obvious negative view toward the nursing profession held by the students was nurses obey all doctors' orders. This perception is not only from students but generally from all people. This finding was supported by other studies conducted in Ireland, Saudi Arabia, Singapore, and Pakistan (Tawash, 2016; Keshk et al., 2016; Liaw et al., 2017; Jan & Sikander, 2012). Positive perceptions held by the students in this category were nurses have an opportunity for career advancement, have opportunities for personal growth and development, are well educated, and are effective health teachers.

For nursing professionalism, the students positively viewed nursing as a caring profession, a career that helps people, especially sick people, and uses high skills and knowledge in dealing with people. The main essence of nursing is caring because most studies found caring as an important element in nursing (Mkala, 2013). The misconception about nursing was the respondents considered nursing as an independent profession without powerful people and unable to make decisions about patient care by themselves. The truth is, nursing is a profession with its own license and board to ensure standards. Lack of awareness regarding this information could make people continue to have this side of thought.

A majority of the respondents were aware of the nursing working conditions. They perceive nursing as a very busy job and that nurses perform unpleasant tasks when caring for their patients, are exposed to dangerous diseases and work in dangerous environments and large groups of people. They are also at risk for having musculoskeletal disorders (Yusoff, Firdaus, Jamaludin, & Hasan, 2019). The nature of some nursing working conditions, including handling blood and bodily waste and exposure to dangerous disease, negatively affected the image of nursing (Keshk et al., 2016). In fact, other healthcare providers, including doctors, also have the same working conditions, but people do not use the same reasons in viewing other careers. Despite the similarities in the nature of other health care professions and nursing, lack of awareness and misconceptions with regard to nursing remained, which can be overcome by nursing promotion and recruitment initiatives (Keshk et al., 2016).

This study found a difference between gender and perception toward nursing education and career potential. This result was supported by a study in Arab Saudi where a significant difference was found between nursing perceptions and gender (Keshk et al., 2016). The results of the present study showed that women are more positive toward nursing education and career potential compared to men. The stigma of nursing profession is suitable only for women still exists. Hence, men are not favorable in considering nursing as their career choice and uninterested in searching for further information regarding a nursing career.

Meanwhile, the level of academic performance was significantly associated with perceptions toward nursing working conditions. Keshk et al. (2016) revealed that students who had a satisfactory Grade Point Average (GPA) had better career image than other students did while students who received a good GPA had better career accessibility than other students did. Therefore, students with good academic performance would view a nursing career more brightly than students with low academic performance.

Finally, although the students had overall positive perceptions about nursing, they showed very little interest in joining a career in nursing. Previous research in Ireland gained a similar outcome (Tawash, 2016). Many high school students had a clear understanding of the nature of nurses' work, but many of them were uninterested to join a nursing career because it "does not suit them" (Tawash, 2016). Jan and Iskandar (2012) found that only 5.4% students had considered nursing while 46% students had not considered nursing as a career choice. This finding is contrary to a research in Punjab, which found that most of the nursing students were not interested to change their profession (Patidar, Kaur, Sharma, & Sharma, 2011). The nursing students enjoyed and were satisfied with their current profession. Hence, further study regarding factors that influence students in considering and not considering nursing as their career choice is suggested. Some limitations that may affect the overall finding in this study include time constraint. In addition, the findings cannot be generalized because only three schools were involved.

Conclusion

This study showed that secondary school students from three selected schools in Kuantan had positive perceptions and notions about nursing. However, they showed very little interest in joining nursing despite having positive views toward a nursing career. The outcome of this study may help in developing strategies to tackle the remaining negative image of nursing and enhancing the image of nursing in the society.

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PREGNANT WOMEN'S EXPERIENCE DURING ANTENATAL CARE IN PRIVATE CLINIC MATERNITY NURSING

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Abstract

Maternity nurses are authorized health workers that provide antenatal care, but their roles and function in antenatal care services are not recognized by the public. This research aims to reveal the experience of pregnant women during antenatal visits in private clinic maternity nursing. Six pregnant women selected using purposive sampling underwent an in-depth interview in this descriptive phenomenological study. Data were analyzed through thematic content analysis with Moustakas approach. Three themes were identified in this study: 1) women experience good communication with maternity nurses; 2) women receive family-centered nursing care; 3) the schedule, cost, facility, and types of service meet the participants' needs. This study suggests for nurses to improve their competencies in delivering antenatal care according to clients' needs.

Keywords: antenatal care, maternity nurses, pregnant women

Abstrak

Pengalaman Kehamilan Wanita Selama Masa Perawatan Antenatal di Klinik Mandiri Keperawatan Maternitas*. Perawat spesialis maternitas adalah petugas kesehatan berwenang yang menyediakan perawatan antenatal, tetapi peran dan fungsinya dalam layanan perawatan antenatal belum dikenal oleh masyarkat. Penelitian ini bertujuan untuk mengungkapkan pengalaman ibu hamil selama kunjungan antenatal di klinik mandiri keperawatan maternitas. Enam ibu hamil yang dipilih menggunakan purposive sampling menjalani wawancara mendalam dalam studi fenomenologis deskriptif ini. Data dianalisis melalui tematik konten analisis dengan pendekatan Moustakas. Tiga tema diidentifikasi dalam penelitian ini: 1) ibu hamil mengalami komunikasi yang baik dengan perawat maternitas; 2) wanita menerima asuhan keperawatan yang berpusat pada keluarga; 3) jadwal, biaya, fasilitas, dan jenis pelayanan sesuai keinginan ibu hamil. Studi ini menyarankan bagi perawat untuk meningkatkan kompetensi mereka dalam memberikan pelayanan antenatal sesuai dengan kebutuhan klien.*

Kata Kunci: *antenatal care, ibu hamil, perawat maternitas*

Introduction

Many pregnant women in Indonesia do not make antenatal care (ANC) visits. According to the World Health Organization, the minimum number of ANC visits during pregnancy is four times. Routine ANC visits can prevent maternal complications. The Indonesia Health Profile (Riskesdas) in 2013 showed that 81.6% (among 49,603 people) pregnant women do the ANC visit at least once during the first trimester, whereas only 70.4% pregnant women do the ANC visit routinely, which is at least four times during pregnancy. Moreover, almost 30% of pregnant women in Indonesia do not routinely check their pregnancy in accordance with standardized regulation, which is at least four times of medical pregnancy check-up (Ministry of Health Republic of Indonesia, 2013).

Pell et al. (2013) found that the ANC visits of pregnant women are influenced by several factors, including interactions and communication of health workers with pregnant women, as

well as the costs incurred for visiting pregnant women. This study depicted that the health workers delivering ANC can affect an expectant mother's willingness to do ANC visits. This issue can be avoided through the involvement of competent health workers, such as Obstetrician-Gynecologist (OB-GYN), general practitioner, midwives, and nurses (Ministry of Health Republic of Indonesia, 2010). ANC can be delivered by nurses, especially maternity nurses. However, the number of ANC visits on maternity nurses is still low.

This phenomenon can be attributed to the unrecognized competencies of maternity nurses, as evidenced by the low number of ANCs carried out by nurses. Constitution number 38 year 2014 article 28 about independent nursing practice states that every maternity nurse has a wide chance to start independent medical practice, specifically in ANC. The independent medical practice is expected to raise antenatal visit rates.

An independent medical practitioner that delivers ANC is private clinic maternity nursing ran by maternity nurses. This clinic has numerous clients from various districts or cities around the nation. Initial study showed that the clinic has around 15–20 visits per week. Most of the clients check their pregnancy from prenatal to postnatal.

In consideration of the phenomenon above, the experience and perception of expectant mothers in doing ANC visits on private clinic maternity nursing need further study.

Methods

This study used a qualitative phenomenological approach to understand the experience of expectant mothers in private maternity nursing practice. The participants of this study involved six pregnant women who regularly did ANC visits on independent maternity nursing practice. The participants were selected through purposive sampling. Data were collected by an in-depth interview subjected to thematic content analysis with Moustakas approach (1994). Data collected by conducting in-depth interviews were recorded, transcribed, and analyzed.

In this study, credibility of the data was maintained by confirming and clarifying the information submitted by participants regarding their experience in conducting ANC visits in private clinic maternity nursing. The results of the transcript should agree with the intent submitted by the participant. Researchers spent time with the participants before the interview to establish rapport and make the participants feel relaxed during the interview.

Results

Participants' Characteristics. The participants included in this study were pregnant women who stay in the same city as the clinic and those from other cities. The first, fourth, fifth, and sixth participants live in the city the same as the clinic, whereas the second and third live outside the city where the clinic is. Half of the participants were employed (first, second, and fifth), whereas the other half were unemployed. All participants were multigravida because the primigravida variation was not achieved.

In terms of educational background, one participant has level three associate degree, four participants have a bachelor degree, and one participant has a master's degree. The participants were also from various ethnicities: three participants are Javanese, one is Batak, one is Sundanese, and one is Betawi. The youngest participant was 28 years old, whereas the eldest was 34 years old. The gestational age of each participant during the interview varied from 25 weeks to 36 weeks. Meanwhile, the number of ANC visits of each participant ranged from three to five on average.

Theme One: Women Experience Good Communication with Nurses. This theme is supported by two categories. Category one shows the women describe the nurses as friendly, pa-

tient, communicative, and informative. This experience was stated by all participants. The statement below is an example of two statements,

> *"…the nurses here are really friendly, communicative, and informative. I feel welcomed." (P4)*

The other participant said,

> " … *Alhamdulillah, all health workers (nurses) are friendly" (P2)*

Category two demonstrates the nurses use eyes contact, gestures, and good expression. The statement below is an example of two statements:

The first participant says that the health workers show nice gesture toward clients during their visit.

> *"…what I like from here (the clinic), the nurses give good eye contact and gesture, and also their (facial) expression which can make feel assured. Well… mm... to me, those things can make me feel more comfortable psychologically." (P1)*

The other participant said,

> *"…when talking to nurses, they have expressions, they pay attention to me, they don't do other work." (P5)*

Theme Two: Participants Receive Family-Centered Nursing Care. This theme is supported by three categories. Category one shows that the women associate the atmosphere in the clinic with that at home. This experience was stated by all participants. The statement below is an example of two statements:

> *"... the most interesting thing for me here is the atmosphere homey ... the first time I entered I felt like entering my own home, there is no such thing as the smell of drugs let alone hospital scents ... "(P6).*

The second participants said,

> "*…the bed is like a mattress when we sleep at home ... not like a patient's mattress at the hospital." (P2)*

Category two exhibits that the women feel the clinic services involve husband, children, and other family members. Almost all participants said they felt free to bring children during pregnancy control. During the examination, the presence of children was also accepted by the health workers. The statement below is an example of two statements:

> *"… So, what I like from here (the clinic), err.. they (health workers) want us to feel… mmm … like being accepted (the newborn) by the family, so mm… the service here involves the family members… their service is not given to not just me, but also to my husband… like the information about my medical check-up is being told to my husband as well" (P4)*

The other participants said,

> *"... if I check (for pregnancy), they (the children) also like to be involved, listen to the sound of their sister's/brother's heart ..." (P4)*

Category three shows that the women are placed in a family-centered birthing room. This experience was stated by all participants. The statement below is an example of two statements:

> *"… there's facility for my family to wait for me (during check-ups), my family, like my kids, my husband, my parents, can also accompany me while I gave birth (to my first child)"* (P5)

In addition, the delivery room in the clinic allows the client to be accompanied by her family during delivery.

"... giving birth is also there, we and the family remain in that room ... besides the mattress for me, there is a sofa for the family who are waiting" (P2)

Theme Three: Schedule, Cost, Facility, and Types of Service Meet the Participants' Needs. This theme is supported by three categories. Category one shows the women have a flexible control schedule. This experience was stated by all participants. The statement below is an example of two statements.

One participant conveyed about the flexible visitation schedule.

"…the schedule (of antenatal visit) can fit in to my time, the class is on Wednesday and Saturday. Well I usually choose the Wednesday (class). And others who have jobs usually take the Saturday class" (P2)

The participants stated that the schedule for consultation is flexible; they can ask questions without time limitation.

"… in here (the clinic) I can freely consult (to the health workers)… it can be done anytime, by sms (short message service), so it's not being limited at all." (P4)

Category two depicts the many types of ANC services experienced by the women. Almost all participants stated that the ANC activities in the clinic are not limited to physical examinations and that other forms of activity support ANC. The ANC activity package in the independent practice of maternity nurses includes the assessment of complaints and medical history, physical examinations, health education, prenatal classes, yoga, hypnobirthing, and pregnancy massages. This statement is illustrated as follows:

"... whereas here we are taught a lot, there is self-empowerment, taught positive affirmations, in the love of the sciences around pregnancy and even baby care ... pregnancy yoga. there was also a talk about the consultations from the nurses here ... Other services might be for prenatal classes, pregnancy checkups... there is hypnobirthing too." (P4)

The other participant said,

"... pregnancy check for sure ... the first time I was asked, there were serious illnesses, such as diabetes, heart disease, lung spots, were asked what complaints were there, what was felt ... pregnancy class ... given hypnobirthing material, relaxation of pregnant massage ... taught for induction, natural induction ... Now that's probably the rare thing to get if we check somewhere else. materials like that are not found." (P5)

Category three shows that the women feel the costs incurred correspond to the services obtained. All participants were satisfied with the services provided. Thus, the fees charged are not a problem for the participants. Some participants stated that the services in the private clinic are expensive but justifiable by the knowledge, quality of services, and facilities available. The statement can be seen as follows:

"... Yes, that is pretty good (the cost). It can't be said to be cheap, it's quite high, but ... but that's it ... If in my opinion, it is in accordance with the services provided." (P4)

The other participant said,

"... yeah ... pretty high (the cost). But ... I don't think it is so high when compared to the knowledge and facilities provided. So, we have to sacrifice more to get something more... " (P2)

Discussion

Participants Experience Good Service and Good Communication from Nurses. The participants prefer independent nursing practice for ANC visits because the services delivered

meet their needs and expectation. One service component experienced by the participants is the communication by the health workers in the clinic. All participants feel the workers are friendly, communicative, and informative. This type of gesture can make clients feel comfortable during their visit or consultations. By contrast, some participants shared their previous experience on another clinic where the nurses do not give eye contact. This theme is in line with the report of Ekott et al. (2013) that expectant mothers prefer competent and friendly health workers in a reliable clinic for their ANC routine. This finding is supported by the report of Shabila, Ahmed, and Yasin (2014) that pregnant women show a good perception toward nurses who communicate well, are friendly, and are polite in delivering care.

Health workers should be nice and friendly to expectant mothers during ANC visits. They also need to understand the needs and respect the privacy of clients. This gesture creates a comfortable atmosphere to clients during ANC visits. According to Rani, Bonu, and Harvey (2008), how nurses provide their time adequately to clients, how polite and how much care nurses can give to clients, and how respectful the nurses are to client privacy can be observed.

Participants Receive Family-Centered Nursing Care. Health workers or nurses in ANC give their attention not only to expectant mothers but also to their families by involving them in deciding things or making choices. The workers must follow the process of communication, participation, and partnership with the clients' family before making a decision (Khatun, 2010).

In the context of ANC services, nurses not only provide nursing care to expectant mothers but also involve and collaborate with the clients' respective families by adapting the Family-Centered Maternity Care (FCMC) concept. This finding is in line with the finding of Katz (2012) that FCMC can increase the feeling of security and satisfaction of clients. Nurses can provide health education and nursing intervention to the clients' family for supporting expectant mothers during the prenatal period, thereby improving the health of the mother and the fetus.

The second participant says she pleasantly involves her child in doing antenatal class activities. Children can be involved in many activities, such as checking the baby's heartbeat and learning to accept and recognize the newborn child as their family member. Moreover, the husband can learn about pregnancy, childbirth preparation, and his role during those periods. This activity is in line with the report of Engel (2008) that FCMC is an approach in delivering obstetric care to encourage information exchange and collaboration among clients, families, and nurses by assuming that the clients' family and relatives care about and fully support them.

Participants also stated that the ambience of the clinic feels homey to them as unlike most clinics or hospitals. According to them, the independent maternity nursing practice does not have the aseptic smell, thereby providing comfort to the client. This finding is in accordance with Novick's statement (2009) that physical and ambience adjustment to antenatal clinics can be considered by expectant mothers when choosing their facility.

Schedule, Cost, Facility, and Types of Service Meet Participant Needs. Aside from family-centered care, the participants also stated that the schedule, cost, facility, and types of service meet their needs. This response is supported by Eryando (2008), who explained that expectant mothers choose flexible antenatal clinics. Similarly, Shabila et al. (2014) found that expectant mothers rely on antenatal clinics that provide long consultation sessions and complete health education.

Moreover, Novick (2009) stated that expectant mothers choose a clinic with a short waiting

time. In the present study, the participants conveyed that the clinic informs them about the schedule via phone. The participants also confirmed the good punctuality of the clinic.

Participants also commented on the clinic's attempt to provide complete ANC activities that are suitable to their needs. Expectant mothers need various activities aside from physical examination during their ANC visit.

According to participants, the ANC visit in the clinic begins with a medical check-up, which includes consultation on pregnancy and medical history. This procedure is necessary because nurses must understand their clients' conditions. This finding is in line with Khatun's research (2010), which explained that health workers must observe comprehensively the medical history of their clients to prevent prenatal complication. Cicolini et al. (2015) stated that a health assessment helps in making an appropriate clinical judgment and provides important information that can lead to the right diagnosis.

The participants reported that the medical check-ups include physical examination, body weight measurement, tension check, eyes examination, Mid-Upper Arm Circumference, abdominal examination, fetal heartbeat examination, and ankle and foot examination for swelling. Baid, Bartlett, Gilhooly, Illingworth, and Winder (2009) reported that holistic nursing care requires patient assessment based on information obtained from interviews, physical examinations, and assessments of patient history. In addition, nurses must examine their client's head, hair, eyes, nose, ears, teeth, mouth, neck, breasts, respiratory system, cardiac system, and abdomen (measuring symphysis-fundus height, leopold, fetal pulse rate, and hyperpigmentation), extremity reflexes, pelvis, and rectum.

After medical check-ups, the clinic also provides various prenatal class activities. The class provides health education and complete materials about pregnancy, childbirth preparation, childbirth process, and newborn care. Fawole, Okunlola, and Adekunle (2008) stated that expectant mothers have a positive perception on antenatal clinics that provide health education about gestational age, breastfeeding, obstetric danger signs, nutritional needs during pregnancy, sexuality needs during pregnancy, activities during pregnancy, self-care, and positive affirmation to prepare normal childbirth.

ANC care includes yoga session, hypnobirthing, and massage. These activities are suitable for participants who desire for gentle birth and Vaginal Birth After Cesarean (VBAC). According to the participants, this type of class, activities, and materials cannot be acquired in other clinics.

Health services that provide satisfying information about client conditions are the choice of pregnant women. Novick (2009) reported that pregnant women seek information about certain topics, including pregnancy condition, self-care, signs of high-risk pregnancy, childbirth, baby care, family planning, psychosocial problems, and the role of partners. Pregnant women also want services to provide antenatal classes or groups where they can share their stories with fellow pregnant women.

All participants conveyed that they feel satisfied with the services provided in the private clinic maternity nursing. Thus, the service costs incurred are not a problem for the participants. The results of this study are different from those obtained by Eryando (2008), who reported that the cost is the main factor for pregnant women to choose antenatal clinics. However, the participants of the present study disagree with this statement and explained that they prefer considering the quality of the services provided than the cost.

The participants said the costs incurred justify the facilities and services provided. The private clinic maternity nursing has facilities that are sufficiently complete and comfortable so that participants feel satisfied. In line with the-

se results, the study of Shabila et al. (2014) reported that pregnant women in Iraq have poor perceptions of ANC services because of uncomfortable waiting room facilities and the unavailability of laboratory and ultrasound utilities.

Pregnant women involved in this study stated that the independent practice of maternity nurses provides complete and comfortable facilities, including a safe, comfortable and comfortable bed. Other facilities such as waiting rooms, service rooms, delivery rooms, and facilities for children are also comfortable and complete in inspection equipment, which make the independent practice of maternity nurses attractive for expecting mothers who wish to pay ANC visits. The results of the present study are in line with Novick's research (2009), which stated that expectant mothers prefer antenatal clinics with play areas for children, a relaxing and informal environment that maintains client privacy, and a consultation place that allows clients and families to attend examinations.

Conclusion

The study involved six participants. Three themes describe the experiences of pregnant women in choosing the antenatal clinic. The first theme shows the participants' experience of good service and good communication from nurses. The second theme depicts the family-centered nursing care received by the participants. The third theme exhibits that the schedule, cost, facility, and types of service meet the participants' needs.

Maternity nurses should provide ANC in accordance with the needs and expectations of clients. Nurses should pay attention not only to the physical aspects but also to the biopsycho-socio-culture in providing ANC.

Independent nursing practice is an attractive venue for antenatal visit routine. Thus, nurses should always deliver ANC services in accordance with the preference of clients. Provision of ANC services that meet the needs and expectations of clients can increase the number of ANC visits to the clinic.

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STRESS WITHIN FAMILIES OF PATIENTS WITH PSYCHOTIC DISORDERS: INITIAL STUDY

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Abstract

Psychotic disorders are the most severe form of mental illness. The family is the primary supporter of patients with psychosis; as such, the family is likely to experience stress when caring for psychotic patients and assisting in their recovery. Data analysis regarding stress within families could inform the types of support that family members receive. This study aimed to determine stress within families of psychotic patients in Garut, Indonesia. A descriptive study was carried out using a quantitative approach. The samples collected were of the families who visited an outpatient clinic in Garut. A purposive sample of 70 respondents using the Slovin formula (10%) was recruited. Data were collected using the 42 Depression Anxiety Stress Scale (DASS) questionnaire, and univariate analysis was conducted. Results showed that 5.7% of the respondents experienced medium stress, 54.4% experienced mild stress, 41.4% did not experience stress, and only one person (1.4%) experienced severe stress. The findings suggest that families with psychotic patients experience stress. Further research is recommended to examine the factors and levels of stress within families of long-term acute psychotic patients.

Keywords: family, psychotic, stress

Abstrak

Stres dalam Keluarga Pasien dengan Gangguan Psikotik. *Gangguan psikotik adalah bentuk penyakit mental yang paling parah. Keluarga adalah pendukung utama pasien yang menderita psikosis,keluarga cenderung mengalami stres ketika merawat pasien psikotik dan membantu dalam pemulihan mereka. Analisis data mengenai stres keluarga dapat menginformasikan jenis dukungan yang diterima anggota keluarga. Tujuan dari penelitian ini adalah untuk mengetahui stres keluarga dengan pasien psikotik di Garut, Indonesia. Studi deskriptif dilakukan dengan menggunakan pendekatan kuantitatif. Sampel yang dikumpulkan adalah dari keluarga yang mengunjungi klinik rawat jalan di daerah Garut. Sampel purposive dari 70 responden menggunakan rumus Slovin (10%) yang direkrut. Data dikumpulkan menggunakan kuesioner 42 Depression Anxietystress Scale (DASS) dengan melakukan analisis univariat. Hasil penelitian menunjukkan bahwa 5,7% responden mengalami stres sedang, 54,4% mengalami stres ringan, 41,4% tidak mengalami stres, dan hanya satu orang (1,4%) mengalami stres berat. Dapat disimpulkan dari temuan bahwa keluarga dengan pasien psikotik mengalami beberapa bentuk stres. Penelitian lebih lanjut direkomendasikan untuk memeriksa faktor-faktor dan tingkat stres keluarga dengan pasien psikotik akut lama.*

Kata Kunci: *keluarga, psikotik, stres*

Introduction

Many people experience mental disorders globally. In Indonesia, people ranging from children and adolescents to adults and the elderly suffer from a mental disorder. Tough, Siegrist, and Fekete (2017) reported that mental disorders are caused by negative emotional, psychological, and social conditions in different human relationships.

Mental health is a psychological condition that allows a harmonious and productive life as an integral part of one's quality of life, considering all aspects of human life. Mental disorder is a change in the function of the soul, which causes

suffering to individuals and/or obstacles in carrying out social roles (Keliat, Akemat, Daulima, & Nurhaeni, 2011).

Analysis of mental health data processed by the Ministry of Health Republic of Indonesia (2013) included psychotic and emotional disorders and their treatment. Psychosis is a mental disorder that disrupts the ability of a person to judge a bad reality. Symptoms of this disorder include hallucinations, illusions, delusions, thought process disorders, ability to think, and strange behavior, such as fighting or behaving in an extreme manner. A psychotic study in Indonesia showed that psychosis affects 0.3%–1% in the age groups of 18–45 and 11–12 years. Indonesia has a population of 264 million, of which 2.5 million people are affected by psychotic disorders. Garut has a population of 2,569,505, of which 1,343,307 are patients with mental disorders who receive outpatient care (Health Department of Garut, 2016).

In low-income communities, families generally take care of their own mentally ill family members. This situation is very common in Indonesia where the core family ties are still strong. Families with schizophrenic patients experience several problems, such as fellow family members blaming each other, poor understanding of the disorder, lack of acceptance, and dysregulated family time, energy, and resources in caring for members with mental disorders. Thus, families with schizophrenic patients experience psychological problems, including increased stress and family anxiety (Tiur, Simanjuntak, & Daulay, 2006).

Psychotic episodes can be triggered by one offspring who has a mental disorder caused by a separate hereditary issue that is shared or associated with other clinical syndromes (Arnedo et al., 2015). A psychotic episode may occur because of a disruption from the surrounding physical environment, which may complicate the ability to identify with one's emotional needs and the ability to connect with others and express thoughts clearly, or because of reacting emotionally toward others (Green, Horan, & Lee, 2015).

MacFarlane (2013) stated that the task of the family in maintaining good mental health involves identifying any developmental disruption of the health of all family members, deciding good and proper health action behavior, providing adequate care of all sick family members, maintaining a clean and healthy home environment, and ensuring good communication with all family members. Public perceptions need to be changed to eliminate stigma, and psychotic patients should be supported rather than discriminated against to improve quality of life (MacFarlane, 2013).

The family is a collection of two or more people who live together and are emotionally connected, and each person has a character that is part of a family group. According to MacFarlane (2013), a family is an open group, which means that a change or disturbance in one part will affect other parts and cause interference. Therefore, during the healing process of a psychotic patient, the family naturally becomes a factor in the patient's recovery. The pace of patient recovery can be assessed in either medical or psychological terms; however, empathy on the part of the family also contributes to patient recovery. Affection and positive attention are needed by psychotic patients so that they are recognized and feel that they are needed.

In treating patients with mental disorders, families can experience stress. Stress can be divided into several types, including physical, chemical, and physiological stress; growth and developmental stress; and physical and emotional stress. Psychological stress is caused by several factors, including emotional pressure (Wood, Valentino, & Wood, 2016; Strohmeier, Scholte, & Ager, 2018). Other factors, such as social prejudice and ignorance toward patients with mental disorders, can also contribute negatively to the condition of patients with a mental disorder or their family and may cause physical disrup-

tion (somatic) and psychological stress. Distress is a type of stress that affects the interference of more than one body organ and prevents one from enjoying normal activities or performing work properly. Two factors influence stress, namely, biological factors (e.g., heredity, physical condition) and sociocultural factors (e.g., personality development, experience, and other conditions) (Wood et al., 2016; Strohmeier et al., 2018).

Handayani and Nurwidawati (2013) showed that the family's emotions toward the situation and lack of understanding in how to care for family members with mental disorders cause recurrence. Sitinjak (2016) found that 70% of families dealing with a mentally ill patient experience moderate anxiety when the patient relapses. Besides, a family's coping strategy is strongly influenced by many factors, including beliefs, finances, knowledge, communication patterns, and social support (Wardaningsih, Rochmawati, & Sutarjo, 2016). Therefore, improving knowledge, economic, and emotional factors can positively influence family support in caring for patients with mental disorders and can prevent recurrence.

From the results of a preliminary study on the patient's family, families who experience mild stress are characterized by feeling tired, also families with moderate stress are characterized by complaints of insomnia and difficulty relaxing, families with severe stress are characterized by slight irritability. This family experienced many complaints but was not felt for the care of sheep. He also agreed with the family and for treatment with parents of patients with psychotic disorders, this always gets money for parents of patients who need psychotic drugs do not require permanent treatment. Lowyck et al. (2004) reported that family members with schizophrenic patients carry the financial and emotional burden of caring for patients.

This study aimed to describe the stress within families of psychotic patients at the psychiatric mental clinic in Garut, West Java, Indonesia.

Methods

Descriptive research with a quantitative approach was used in this study. This study included families in Garut, West Java, Indonesia, who visited an outpatient clinic treating psychotic patients. Purposive sampling was used to analyze 70 respondents using the Slovin formula (10%). Data collection techniques were performed using the 42 Depression Anxiety Stress Scale (DASS) questionnaire and univariate analysis where the researcher describes each variable. Families of psychotic patients were included in this study. Families of non-psychotic patients were excluded. Data were collected by distributing questionnaires to families who visited Poli to seek treatment or to consult with a doctor. A descriptive research design was used in this study, and purposive sampling was performed. Seventy families of psychotic patients who visited the Polyclinic Clinic of the X Hospital in Garut, to take medicine or seek treatment were selected as respondents.

For balancing harms and benefits in this study, no adverse treatments to respondents were administered and no specific action were taken. Researchers were expected to not harm the respondent, and no treatment was detrimental to the respondent. Data were used only for the development of science.

Results

Data were obtained using the DASS 42 questionnaire. The results of the study are presented in the form of descriptive statistics with frequency distribution.

The stress level of the respondents was characterized, and mild stress was the most reported stress level of 36 people (Table 1). In terms of age, a small proportion of 13 people (18.5%) experienced mild stress in the vulnerable adult age of late 36–45 years. Almost half of the 21 females (30.0%) experienced mild stress, and 9 families of patients under mild stress were mothers. A large proportion of the respondents last atten-

ded elementary school education, had < 5 years since time of patient diagnosis, and had a monthly family income of less than IDR500,000.

As shown in Table 2, 5.7% of the 70 respondent families of patients at the Psychiatric Clinic in Garut experienced medium stress. By strong comparison, 36 families (54.4%) experienced light stress. Nearly half of the families of the patients included in the normal range amounted to 29 (41.4%), and only 1.4% of the families experienced severe stress.

Table 1. Frequency Distribution of Characteristics of Families with Psychotic Patients (N= 70)

Characteristic	Population	%
Age		
Early teens	1	1.4
Early adulthood	16	22.9
Late adulthood	23	32.9
Early elderly	18	25.7
Late elderly	11	15.7
Elderly	1	1.4
Gender		
Male	28	40.0
Female	42	60.0
Family relations with patients		
Mother	17	24.3
Father	11	15.7
Old brother/sister	8	11.4
Young brother/sister	10	14.3
Husband/wife	11	15.7
Daughter/son	13	18.6
Last education		
No school	6	8.6
Elementary school	24	34.4
Middle school	19	27.1
High school	17	24.3
College	4	5.7
Time the patient was diagnosed (years)		
< 5	35	50.1
5–10	20	28.6
11–15	11	15.7
16–20	1	1.4
<21	3	4.3
Monthly family income		
< IDR500,000	33	47.1
IDR500,000–1,000,000	14	20.0
IDR2,000,000	12	17.1
IDR3,000,000	5	7.1
> IDR3,000,000	6	8.6

Table 2. Frequency Distribution of Stress Levels within Families of Psychotic Patients

Stress Level	Frequency	%
Normal	29	41.4
Light	36	51.4
Medium	4	5.7
Weight	1	1.4

Discussion

Stress is naturally experienced by many people. However, if unacknowledged, stress can affect health negatively and result in mental disorders. Stress is a response to the environment when an expectation or desire is determined or the demands cannot be fulfilled, leading to poor defenses (PH, Daulima, & Mustikasari, 2018). Communication factors are important in addressing issues with stress and mental illness, as well as the conditions of the surrounding environment. High stress levels and disturbed physical and emotional environment can trigger a psychotic episode (Wulansih & Widodo, 2008). Suryani, Komariah, and Karlin (2014) revealed that family perceptions regarding a psychotic patient are mostly positive, but some are negative. However, a family's opinion about psychotic treatment is still low. Therefore, nurses should educate families about processes in a patient's recovery. Saragih and Indriati (2016) argued that family members tend to have poor knowledge and negative views about the care of a psychotic family member, resulting in ineffective communication by families when engaging with a member with a mental illness.

Results of the present study showed that a small number of families (4/70, 5.7%) experienced moderate stress. A large number of (36/70, 54.4%) families experienced mild stress. Nearly half of the families (29/70, 41.4%) of the patients experienced normal stress, whereas only one family (1.4%) suffered severe stress.

In addition, 36 people experienced mild stress with late adulthood (36–45 years). The last education with the majority in mild stress was elementary school, the majority of patients was diagnosed with < 5 years, and the most income was < IDR500,000/month. The patient's family is the elderly who are susceptible to disease with weak strength, and even for work, some people who would accept it or not. They have an income of less than IDR500,000/month, for daily food costs and other needs. A relationship exists between stress level and parental socioeconomic status (Rohman, 2010).

One family member, specifically a patient's mother, in the age range of 36–45 years experienced severe stress. Mubin and Andriani (2017) found that menopause with symptoms of uncontrolled emotions, mood swings, anxiety, and difficulty sleeping occurs because of the increasing levels of follicle-stimulating hormone and luteinizing hormone. They stated that a woman aged 36–60 years tends to experience stress because they believe that mental disorders in their children cannot be cured and that people with mental disorders always depend on drugs.

In the present study, moderate stress was recorded in four families, including elderly. The elderly not only need to support themselves but also must pay for their family's daily expenses and treatment and even for the treatment of schizophrenic patients in their family. Factors that cause stress for the elderly can be due to changes in family and work (Indriana, Kristiana, Sonda, & Intanirian, 2010). According to Riandita (2018), families with moderate levels of stress can take longer in a few hours to several days. However, the results study also found that families did not experience stress as many as 29 people, which is the duration of patients suffering from psychotic more than 10 years with a calm state. Besides, the results of direct interviews with families of patients with psychotic disorders feel grateful for the situation and are a test for him.

The research of Mubin and Andriani (2017) entitled "An overview of stress levels in families who have mental disorders in dr. H. Soewondo Hospital of Kendal" uses descriptive exploratory to focus at the community level. The population recorded was as many as 349 patients with mental disorder living with their family. Accidental sampling produced a sample size of 78 people, and the results showed that most families experienced moderate stress (52/78, 66.7%). Severe stress was reported by 18 people (23.1%), and mild stress was reported by 8

people (10.3%). Their study included patients with family age in the range of 36–60 years old (49/78, 62.8%), and the majority being female (51/78, 65.4%).

The difference in research was that the previous study focused on patients who experienced mental disorders, whereas this study focused on families with schizophrenic patients only. The population in Kendal General Hospital totaled 349 patients in the last month, and that in Garut Hospital totaled 235 patients in the last month. Mubin and Andriani (2017) used accidental sampling where one was chosen as a sample, whereas the present study used consecutive sampling. That is, each patient who fulfilled the research criteria was sampled until the specified time, and the family culture or environment in Kendal and Garut can also be different.

Conclusion

The description of occurrences of stress in families with psychotic patients in Garut prevailed at the light/mild levels, suggesting that most experienced mild stress, almost half experienced normal stress, and a small proportion experienced moderate and severe stress.

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AUTHOR INDEX

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SUBJECT INDEX

JURNAL KEPERAWATAN INDONESIA
SUBMISSION GUIDE

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(One blank single space line, 12 point font, boldface)

Keywords*: up to 6 words/ phrase in English, alphabetically order (10 point font, italics), give commas between words/phrase.*

Abstrak (10 pt, bold, senter)
(One blank single space line, 10 pt)

Abstrak ditulis menggunakan bahasa Indonesia dan Inggris. Menggunakan tipe abstrak satu paragraf tidak berstruktur, huruf 10 pt, spasi tunggal, rata kanan-kiri, jumlah kata sekitar 100 – 250 kata, tidak ada kutipan dan singkatan/ akronim. Abstrak berupa satu paragraf tidak berstruktur. Abstrak harus berisi pendahuluan atau masalah yang diteliti termasuk tujuan penelitian, jika memungkinkan buat dalam satu kalimat. Desain penelitian, cara pengambilan dan besar sampel, cara dan pengumpulan data, serta analisis data. Penemuan utama (OR/ RR, CI atau tema dalam riset kualitatif). Tuliskan satu atau dua kalimat untuk mendiskusikan hasil dan kesimpulan. Rekomendasi dan implikasi hasil penelitian dituliskan dengan jelas.

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Kata Kunci: Kata kunci ditulis menggunakan bahasa Indonesia dan Inggris. Berisi kata atau frase maksimal enam kata dan diurutkan berdasarkan abjad (10pt, italics). Antar kata kunci dihubungkan dengan koma.

(Three blank single space lines, 12 point font, boldface)

Introduction (14 point font, boldface, cap in the first letter of headings)

(One blank single space line, 10 point font)

The manuscript is written with Times New Roman font size 10, single-spaced, left and right justified, on one-sided pages, paper in one column and on A4 paper (210 mm x 297 mm) with the upper margin of 3.5 cm, lower 2.5 cm, left and right each 2 cm. The manuscript including the graphic contents and tables should be minimum 8 pages or minimum 3500 words, preferably in even number of pages. If it far exceeds the prescribed length, it is recommended to break it into two separate manuscripts. The Standard English grammar must be observed. The title of the article should be brief and informative and it should not exceed 20 words. The keywords are written after the abstract.

(Between paragraphs are spaced one blank, single spaced, without indentation)

The title should contain the main keyword and do not use abbreviations, numbering around 20 words. Authors need to write a short title is also desirable to be written as a page header on each journal page. Authors should not just write words such as study/ relationship/ influence in the title because the title should indicate the results of the study, for example, "Reduction of blood sugar through exercises diabetes in the elderly".

The full name of the author (without academic title) is placed below the manuscript title. The order of the author based on his contribution to the writing process. After the authors name is written with superscript numbers to mark the affiliation author. One author, affiliates can be more than one, for example Ananda Anandita[1], Ahmad Taufik[2], Josephine[3]

Affiliates and address of the authors. Give the number according to the name of the author, for example 1. Department of Maternal and Women's Health Nursing, Faculty of Nursing, Universitas

Indonesia, Prof. Dr. Bahder Djohan Street, Depok, West Java – 16424. Correspondence address is email address of the one of the author, for example anandita12@ui.ac.id.

The use of abbreviations is permitted, but the abbreviation must be written in full and complete when it is mentioned for the first time and it should be written between parentheses. Terms/Foreign words or regional words should be written in italics. Notations should be brief and clear and written according to the standardized writing style. Symbols/signs should be clear and distinguishable, such as the use of number 1 and letter l (also number 0 and letter O). Avoid using parentheses to clarify or explain a definition. The organization of the manuscript includes **Introduction, Methods** or **Experimental, Results, Discussion, Conclusions,** and **References**. **Acknowledgement** (if any) is written after **Conclusion** and before **References** and narratively, not numbered. The use of subheadings is discouraged. Between paragraphs, the distance is one space. Footnote is avoided.

This manuscript uses *American Psychological Association (APA*) manual style as citation. When using APA format, follow the author-date method of in-text citation. This means that the author's last name and the year of publication for the source should appear in the text, for example, (Jones, 1998), and a complete reference should appear in the reference list at the end of the paper. Citation can be put at the beginning of the sentence, for example Johnson (2005) states that … or the source put at the end of a sentence for examples … (Purwanto, 2004). See the complete format on this link https://owl.english.purdue.edu/owl/resource/560/02/

Introduction contains justification of the importance of the study conducted. Novelty generated from this study compared the results of previous studies or the umbrella of existing knowledge needs to be clearly displayed. Complete it with main reference used. State in one sentence question or research problems that need to be answered by all the activities of the study. Indicate the methods used and the purpose or hypothesis of the study. The introduction does not exceed five paragraphs.
(One blank single space line, 12 point font)

Methods (14 point font, boldface, cap in the first letter of headings)

(One blank single space line, 10 point font)

Method contains the design, the size, criteria and method of sampling, instruments used, and procedures collecting, processing, and analysis of the data. When using a questionnaire as instrument, explain the contents briefly and to measure which variables. Validity and reliability of instruments should also be explained. In the experimental or intervention studies need to be explained interventional procedure or treatment is given. In this section it should explain how research ethics approval was obtained and the protection of the rights of the respondents imposed. Analysis of data using computer programs needs not be written details of the software if not original. Place/location of the study is only mentioned when it comes to study. If only as a research location, the location details not worth mentioning, just mentioned vague, for example, "... at a hospital in Tasikmalaya."

For the qualitative study, in this section needs to explain how the study maintain the validity (trustworthiness) data obtained. The methods section written brief in two to three paragraphs.
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Results

(One blank single space line, 10 point font)

The findings are sorted by the objectives of the study or the research hypothesis. The results do not display the same data in two forms namely tables/ images /graphics and narration. No citations in the results section. The average value (mean) must be accompanied by a standard deviation. Writing tables using the following conditions.

Table only uses 3 (three) row lines (do not use a column line), the line heading, and the end of the table (see example). Table is written with Times New Roman size 10 pt and placed within a single space below the title table. Table titles is written with font size 9 pt bold, capital letters at the beginning of the word and placed on the table with the format as shown in the examples that do not use the column lines. Numbering tables are using Arabic numerals. The table framework is using lines size 1 pt. If the table has many columns, it can use one column format at half or full page. If the title in each table column is long and complex, the columns are numbered and its description given at the bottom of the table. Mean, SD, and t-test values should include value of 95% CI. Significance value is put with not mention P at first. Example: The mean age 25.4 years intervention group (95% CI). Based on the advanced test between intervention and control groups showed significant (example: p= 0.001; CI= ... - ...).

Images are placed symmetrically in columns within a single space of a paragraph. Pictures are numbered and sorted by Arabic numerals. Captions placed below the image and within one single space of the image. Captions are written by using 10pt font size, bold, capital letters at the beginning of the word, and placed as in the example. The distance between the captions and paragraphs are two single spaced.

Images which have been published by other authors should obtain written permission from the author and publisher. Include a printed image with good quality in a full page or scanned with a good resolution in the format {file name}.jpeg or {file name}. tiff. When the images are in the photograph format, include the original photographs. The image will be printed in black and white, unless it needs to be shown in color. The author will be charged extra for color print if more than one page. The font used in the picture or graphic should be commonly owned by each word processor and the operating system such as Symbol, Times New Roman, and Arial with size not less than 9 pt. Image files which are from applications such as Corel Draw, Adobe Illustrator and Aldus Freehand can give better results and can be reduced without changing the resolution.

Table and image are not integrated with the contents of the manuscript, put after reference or at the end of the manuscript.

For the qualitative study, the findings commonly are written in the form of participants quotes. Table format is rarely used except to describe the characteristics of the participants, or recapitulation of the themes or categories. If the quote is not more than 40 words, then use quotation marks (") at the beginning and at the end of a sentence and include participants/ informants which give statements without the need to create separate paragraphs. Ellipsis (...) is only used to change a word that is not shown, instead of a stop sign/pause. See the following example.

Due to the ongoing process, the women experiencing moderate to severe pain in the knees, ankles, legs, back, shoulders, elbows, and/or their fingers, and they are struggling to eliminate the pain. To alleviate pain, they look for the cause of the pain. One participant stated that, "... I decided to visit a doctor to determine the cause of the pain is. Now I'm taking medication from the doctor in an attempt to reduce this pain" (participant 3)
Here is an excerpt example of using block quotations if the sentences are 40 or more. Use indentation 0.3"

As discussed earlier, once the participants had recovered from the shock of the diagnosis of the disease, all participants decided to fight for their life. For most of them, the motivation for life is a

function of their love for their children; namely child welfare, which being characteristic the pressure in their world. Here is an example of an expression of one of the participants:

I tried to suicide, but when I think of my children, I cannot do that [crying]. I thought, if I die, no one will take care of my children. Therefore, I decided to fight for my life and my future. They (children) were the hope of my life (participant 2).

Discussion

Describe the discussion by comparing the data obtained at this time with the data obtained in the previous study. No more statistical or other mathematical symbols in the discussion. The discussion is directed at an answer to the research hypothesis. Emphasis was placed on similarities, differences, or the uniqueness of the findings obtained. It is need to discuss the reason of the findings. The implications of the results are written to clarify the impact of the results the advancement of science are studied. The discussion ended with the various limitations of the study

Conclusion

Conclusions section is written in narrative form. The conclusion is the answer of the hypothesis that leads to the main purpose of the study. In this section is not allowed to write other authors work, as well as information or new terms in the previous section did not exist. Recommendation for further research can be written in this section.

Acknowledgement (if any)

Acknowledgement is given to the funding sources of study (donor agency, the contract number, the year of accepting) and those who support that funding. The names of those who support or assist the study are written clearly. Names that have been mentioned as the authors of the manuscripts are not allowed here.

References (14pt, *boldface*, Capital letter in the beginning of the Word)

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Journal

Author, A. A., Author, B. B., & Author, C. C. (year). Article title: Sub-title. *Journal Title, volume* (issue number), page numbers.

Wu, S.F.V., Courtney, M., Edward, H., McDowell, J., Shortridge-Baggett, L.M., & Chang, P.J. (2007). Self-efficacy, outcome expectation, and self care behavior in people with type diabetes in Taiwan. *Journal of Clinical Nursing*, 16 (11), 250–257.

References with eight or more authors, write the first six authors' name following ellipsis (…) & the last author's name. Example:
Dolan, R., Smith, R.C., Fox, N.K., Purcell, L., Fleming, J., Alderfer, B., …Roman, D.E. (2008). Management of diabetes: The adolescent challenge. *The Diabetes Educator, 34,* 118-135.

Conference Proceeding
Schnase, J. L., & Cunnius, E. L. (Eds.). (1995). Proceedings from CSCL '95: *The First International Conference on Computer Support for Collaborative Learning*. Mahwah, NJ: Erlbaum.

Newspaper no author's name
Generic Prozac debuts. (2001, August 3). The Washington Post, pp. E1, E4.

Book
Author, A. A. (Year). *Source title: Capital letter in the beginning of the subtitle*. Location/City: Publisher.

Peterson, S.J., & Bredow, T.S. (2004). *Middle range theories: Application to nursing research.* Philadelphia: Lippincott Williams & Wilkins.

Book chapter
Author, A. A. (Year). Chapter title*:* Capital letter in the beginning of the subtitle. In Initial, Surname (Author's name/book editor) (eds). *Book title*. Location/City: Publisher.

Hybron, D.M. (2008). Philosophy and the science of subjective well-being. In M. Eid & R.J. Larsen (Eds.), *The science of subjective well-being* (pp.17-43). New York, NY: Guilford Press.

Translated book
Ganong, W.F. (2008). *Fisiologi kedokteran (*Ed ke-22). (Petrus A., trans). New York: McGraw Hill Medical. (Original book published 2005).

Thesis/Dissertation
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Gilliland, A.L. (*2010). A grounded theory model of effective labor support by doulas* (Disertasi Doktor). Diperoleh dari *ProQuest Dissertations and Theses. (UMI No 3437269)*

If not pubished
Last-name, A. A. (year). *Dissertation/thesis title.* (Unpublished doctoral dissertation/master thesis). Institution Name, Location.

Considine, M. (1986). *Australian insurance politics in the 1970s: Two case studies*. (Unpublished doctoral dissertation). University of Melbourne, Melbourne, Australia.

Database Article
Author, A. A., Author, B. B., & Author, C. C. (Year pub). Title of article. *Title of Journal*, Volume (Issue), pp-pp. doi:xx.xxxxxxxxx [OR] Retrieved from URL of publication's home page

Borman, W.C., Hanson, M.A., Oppler, S.H., Pulakos, E.D., & White, L.A. (1993). Role of early supervisory experience in supervisor performance. *Journal of Applied Psychology, 78*(8), 443-449. Diperoleh dari http://www.eric.com/jdlsiejls/ supervisor/early937d%

Database article wth DOI (Digital Object Identifier)
Brownlie, D. (2007). Toward effective poster presentations: An annotated bibliography. *European Journal of Marketing, 41*(11/12), 1245-1283. doi:10.1108/03090560710821161

Other online source
Author, A. A. (year). Title of source. Retrieved from URL of publication's home page

Article from website
Exploring Linguistics. (1999, August 9). Retrieved from http://logos.uoregon.edu/explore/orthography/chinese.html#tsang

Online article
Becker, E. (2001, August 27). Prairie farmers reap conservation's rewards. *The New York Times*, pp. 12-90. Retrieved from http://www.nytimes.com
(One blank single space line, 12 pt)

Appendices
(One blank single space line, 10 pt)
Appendices are only used when absolutely necessary, placed after the references. If there is more than one attachment/appendix then sorted alphabetically.

Here is an example of a table

Table 1. The Characteristics of the Respondents (capital letters at the beginning of the word 11 pt, bold, left justify)
(blank one single space line, 10pt)

Client's Initial	Age	Major Problem
Mr. BN	56	Aggressiveness
Mr. MA	40	Withdrawal
Mr. AS	45	Swing Mood

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Here is an example of an image
(One blank single space line, 10 point font)

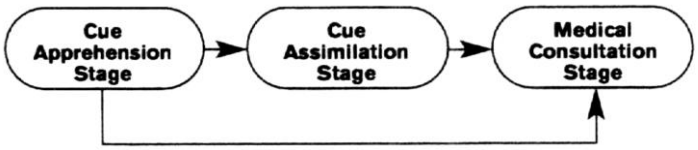

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Figure1. The Process of Cardiac Sensitivity Cues (Capital Letters in the Beginning of the Words, 10pt)
(One blank single space line, 10 point font)

AUTHOR GUIDELINE: CASE REPORT

ARTICLE TITLE (all caps, 14-point font, boldface, centered, Maximum 16 words)
(One blank single space line, 14 pt)

Abstrak (10 pt, bold, senter)
(One blank single space line, 10 pt)

Abstrak harus ditulis menggunakan huruf Times New Roman, ukuran 10pt, huruf miring, rata kanan, dan satu paragraf-tidak terstruktur dengan spasi tunggal. Abstrak harus "pendek dan manis". Seharusnya sekitar 100 – 250 kata. Singkatan atau referensi dalam Abstrak tidak boleh digunakan. Abstrak harus mencakup latar belakang, ilustrasi kasus, dan kesimpulan. Latar belakang mencakup pengantar tentang mengapa kasus ini penting dan perlu dilaporkan. Harap sertakan informasi tentang apakah ini adalah laporan pertama dari jenis ini dalam literatur. Ilustrasi kasus mencakup rincian singkat tentang apa yang pasien sajikan, termasuk usia pasien, jenis kelamin dan latar belakang etnis. Kesimpulan merupakan kesimpulan singkat dari apa yang pembaca harus pelajari dari laporan kasus dan dampak klin
isnya. Apakah laporan kasus asli yang menarik bagi area spesialis keperawatan tertentu atau apakah itu berdampak klinis yang lebih luas?

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Kata Kunci: Bagian ini terdiri dari tiga sampai enam kata kunci/frase yang mewakili konten utama artikel. Kata kunci ini penting untuk indeksasi manuskrip dan pencarian daring dengan mudah. Itu ditulis dalam bahasa Inggris, diurutkan berdasarkan abjad (font 10 huruf, huruf miring), memberikan koma di antara kata-kata/ frasa.

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Abstract *(10*-pt, bold, italics*)*
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Article Title*. Abstract should be written using Times New Roman font, size 10pt, italics, right justify, and one paragraph-unstructured with single spacing, completed with English title written in bold at the beginning of the English abstract. The Abstract should be "short and sweet". It should be around 100 – 250 words. Abbreviations or references within the Abstract should not be used. The Abstract should include into background, case illustration, and conclusion. Background includes an introduction about why this case is important and needs to be reported. Please include information on whether this is the first report of this kind in the literature. Case illustration includes brief details of what the patient(s) presented with, including the patient's age, sex and ethnic background. Conclusions is a brief conclusion of what the reader should learn from the case report and what the clinical impact will be. Is it an original case report of interest to a particular clinical specialty of nursing or will it have a broader clinical impact across nursing? Are any teaching points identified? If manuscripts are not from Indonesia, the Indonesian abstract will be assisted by the editor.*

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Keywords*: This section is comprised of three to six keywords/phrases representing the main content of the article. It is important for indexing the manuscript and easy online retrieval. It is written in English, alphabetically order (10-point font, italics), give commas between words/phrase.*

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Introduction (14-point font, boldface, cap in the first letter of headings)

(One blank single space line, 10-point font)

The manuscript is written with Times New Roman font size 12, single-spaced, left and right justified, on one-sided pages, paper in one column and on A4 paper (210 mm x 297 mm) with the upper margin of 3.5 cm, lower 2.5 cm, left and right each 2 cm. The manuscript including the graphic contents and tables should be minimum 8 pages or minimum 3500 words, preferably in even number of pages. If it far exceeds the prescribed length, it is recommended to break it into two separate manuscripts. The Standard English grammar must be observed. The title of the article should be brief and informative and it should not exceed 20 words. The keywords are written after the abstract.

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AUTHOR GUIDELINE: CASE REPORT

The information about the author(s) such as full name (without academic title), affiliates, and address are wrote on the separate file (tittle page). Affiliates and address of the authors. Give the number according to the name of the author, for example 1. Department of Maternal and Women's Health Nursing, Faculty of Nursing, Universitas Indonesia, Prof. Dr. Bahder Djohan Street, Depok, West Java – 16424. Correspondence address is email address of the one of the author, for example anandita12@ui.ac.id.

The use of abbreviations is permitted, but the abbreviation must be written in full and complete when it is mentioned for the first time and it should be written between parentheses. Terms/Foreign words or regional words should be written in italics. Notations should be brief and clear and written according to the standardized writing style. Symbols/signs should be clear and distinguishable, such as the use of number 1 and letter l (also number 0 and letter O). Avoid using parentheses to clarify or explain a definition. The organization of the manuscript includes **Introduction, Case Illustration, Discussion, Conclusions,** and **References**. **Acknowledgement** (if any) is written after **Conclusion** and before **References** and narratively, not numbered. The use of subheadings is discouraged. Between paragraphs, the distance is one space. Footnote is avoided.

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The Introduction or Background section should explain the background of the case, including the disorder or nursing problems, usual presentation and progression, and an explanation of the presentation if it is a new disease or disorder. If it is a case discussing an adverse intervention the Introduction should give details of intervention's common use and any previously reported side effects. It should also include a brief literature review. This should introduce to the case report from the stand point of those without specialist knowledge in the area, clearly explaining the background of the topic. It should end with a very brief statement of what is being reported in the article.

The Introduction should be in brief, stating the purpose of the study. Provide background that puts the manuscript into context and allows readers outside the field to understand the significance of the study. Define the problem addressed and why it is important and include a brief review of the key literature. Note any relevant controversies or disagreements in the field. Conclude with a statement of the aim of the work and a comment stating whether that aim was achieved.
(One blank single space line, 12-point font)

Case Illustration (14-point font, boldface, cap in the first letter of headings)

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This should present all relevant details concerning the case. This section can be divided into separate sections presented with appropriate subheading, such as history and presenting conditions, intervention, outcome, etc. This should provide concerned details of the case with relevant demographic information of the patient concealing their identification (without adding any details that could lead to the identification of the patient), medical history, observed symptoms and describe any tests or treatments done on the patient. If it is a case series, then details must be included for all patients. Discuss the significance and rarity of findings with referencing to the previous studies.

If it is need to present table(s) and or image(s), some rules should be followed. Table only uses 3 (three) row lines (do not use a column line), the line heading, and the end of the table (see example). Table is written with Times New Roman size 10-pt and placed within a single space below the title table. Table titles is written with font size 9-point bold, capital letters at the beginning of the word and placed on the table with the format as shown in the examples that do not use the column lines.

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Images are using a single space of a paragraph. If the size of the image passes through the column width then the image can be placed with a single column format. Pictures are numbered and sorted by Arabic numerals. Captions placed below the image and within one single space of the image. Captions are written by using 10pt font size, bold, capital letters at the beginning of the word, and placed as in the example. The distance between the captions and paragraphs are two single spaced.

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Table and image are not integrated with the contents of the manuscript, put after reference or at the end of the manuscript.

Discussion

The discussion section should contain major interpretations from the findings and results in comparison to past studies. The significance of the findings and case presentation should be emphasized in this section against previous findings in the subject area.

This section should evaluate the patient case for accuracy, validity, and uniqueness and compare or contrast the case report with the published literature. The authors should briefly summarize the published literature with contemporary references.

Conclusion

Conclusions section is written in narrative form. This section should conclude the Case reports and how it adds value to the available information. Explain the relevance and significance of their findings to the respective field in a summary briefly. This section is not allowed to write other authors work, as well as information or new terms in the previous section did not exist. Recommendation for further study can be written in this section.

Acknowledgement

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Journal

Author, A.A., Author, B.B., & Author, C.C. (year). Article title: Sub-title. *Journal Title, volume* (issue number), page numbers.

Wu, S.F.V., Courtney, M., Edward, H., McDowell, J., Shortridge-Baggett, L.M., & Chang, P.J. (2007). Self-efficacy, outcome expectation, and self-care behavior in people with type diabetes in Taiwan. *Journal of Clinical Nursing,* 16 (11), 250–257.

References with eight or more authors, write the first six authors' name following ellipsis (…) & the last author's name. Example:

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Conference Proceeding

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Newspaper no author's name

Generic Prozac debuts. (2001, August 3). The Washington Post, pp. E1, E4.

Book

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Book chapter

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Thesis/Dissertation

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Last-name, A. A. (year). *Dissertation/thesis title.* (Unpublished doctoral dissertation/master thesis). Institution Name, Location.

Considine, M. (1986). *Australian insurance politics in the 1970s: Two case studies*. (Unpublished doctoral dissertation). University of Melbourne, Melbourne, Australia.

Database Article

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(One blank single space line, 12pt)

Appendices (14pt, boldface, Capital letter in the beginning of the Word)

(One blank single space line, 10pt)

Appendices are only used when absolutely necessary, placed after the references. If there is more than one attachment/appendix then sorted alphabetically.

AUTHOR GUIDELINE: CASE REPORT

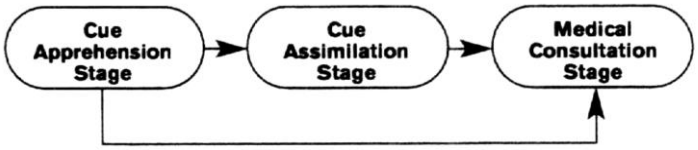
Here is an example of a table

Table 1. The Characteristics of the Respondents (capital letters at the beginning of the word 11 pt, bold, left justify)
(blank one single space line, 10pt)

Client's Initial	Age	Major Problem
Mr. BN	56	Aggressiveness
Mr. MA	40	Withdrawal
Mr. AS	45	Swing Mood

(Blank two single space line, 10pt)

Here is an example of an image
(One blank single space line, 10 point font)



(One blank single space line, 10 point font)
Figure1. The Process of Cardiac Sensitivity Cues (Capital Letters in the Beginning of the Words, 10pt)
(One blank single space line, 10 point font)

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