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20-DEGREE ELEVATION TO REDUCE SWELLING AND PAIN AFTER LOWER EXTREMITY OPEN REDUCTION AND INTERNAL FIXATION SURGERY

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Abstract

Surgery for open reduction and internal fixation (ORIF) causes tissue swelling and pain in the surgical area. Swelling and pain can be reduced by performing distal elevation in the area of surgical ORIF. This study aimed to determine the effect of a 20° elevation on swelling and pain level of patients after surgery for ORIF of the lower extremities. A quasi-experimental design with one intervention group (pretest and posttest) and one control group was implemented. Thirty-four post-operative ORIF patients treated in one hospital in South Sumatera met the inclusion criteria and were divided into intervention and control groups. Swelling circumference was measured using tape meters, and pain level was assessed with a numeric rating scale. Dependent t-test, independent t-test, and Pearson correlation were applied for data analysis. Results showed that the average difference in swelling circumference and pain level between pre and post intervention was 1.93 ± 0.25 and 1.29 ± 0.35, respectively. Significant differences were found in the mean swelling circumference and pain level between the intervention and control groups (p = 0.000). Therefore a 20° elevation of lower extremity on the second day after ORIF for two days can be an alternative for nursing intervention to reduce swelling and pain.

Keywords: elevation, lower extremity, open reduction and internal fixation, pain, swelling

Abstrak

Elevasi 20 Derajat untuk Menurunkan Pembengkakan dan Nyeri Pasca Bedah Open Reduction and Internal Fixation Ekstremitas Bawah. *Pembedahan* open reduction and internal fixation (ORIF) *menyebabkan pembengkakan jaringan dan nyeri pada area pembedahan. Pembengkakan dan nyeri dapat dikurangi dengan melakukan elevasi distal pada area bedah ORIF. Penelitian ini bertujuan untuk mengetahui pengaruh elevasi 20° terhadap tingkat pembengkakan dan nyeri pada pasien pasca operasi ORIF ekstremitas bawah. Desain kuasi-eksperimental dengan satu kelompok intervensi (*pre-test *dan* posttest*) dan satu kelompok kontrol diterapkan pada penelitian ini. Tiga puluh empat pasien ORIF pasca operasi yang dirawat di salah satu rumah sakit di Sumatera Selatan memenuhi kriteria inklusi dan dibagi menjadi kelompok intervensi dan kontrol. Lingkar pembengkakan diukur menggunakan meteran pita, dan tingkat nyeri dinilai dengan skala numerik.* Dependent t-test, independent t-test*, dan korelasi Pearson digunakan untuk analisis data. Hasil penelitian menunjukkan bahwa rerata perbedaan lingkar bengkak dan tingkat nyeri antara sebelum dan sesudah intervensi masing-masing adalah 1,93 ± 0,25 dan 1,29 ± 0,35. Perbedaan bermakna ditemukan pada rerata lingkar pembengkakan dan tingkat nyeri antara kelompok intervensi dan kelompok kontrol (p = 0,000). Oleh karena itu, elevasi 20° ekstremitas bawah pada hari kedua setelah ORIF selama dua hari dapat menjadi alternatif intervensi keperawatan untuk mengurangi pembengkakan dan nyeri.*

Kata Kunci: *bengkak, ekstremitas bawah, elevasi, nyeri,* open reduction and internal fixation

Introduction

Extremity fracture, especially in lower extremity, is one of the most common musculoskeletal traumas. The global incidence of fractures in 2019 reached 178 million, and there were an increase of prevalent cases of 70.1% acute or long term symptoms of fracture since 1990 (GBD 2019 Fracture Collaborators, 2021). In Indonesia, the Health Research and Development

Agency of the Ministry of Health (2019) in the Basic Health Research report reported the higher prevalence of lower extremity fractures (67.9%) than other fracture types.

Open reduction and internal fixation (ORIF) is a medical treatment for extremity fractures consisting of a surgical method paired with internal fixation. Sharr et al. (2016) showed that 89% of patients have experienced swelling in the area around the operation on the second day after ORIF surgery. Swelling is one of the inflammatory response symptoms for almost all postoperative patients, when ignored, this condition can lead to peripheral neurovascular dysfunction (Wilkinson & Ahern, 2012). Most patients also experience pain, Mwaka et al. (2013) found that 13% to 11.7% of patients experienced moderate to severe postoperative pain from days 1–2, and greatest pain from days 2–4 after surgery (Septiani, 2011).

Owing to the development of medical science supported by related research, pharmacological pain management such as the administration of opioids, non-opioids, and analgesics has become a priority (Tarau, 2011). Among which, ketorolac works as an analgesic and anti-inflammatory but can cause side effects such as indigestion, gastrointestinal bleeding, impaired kidney function, and headaches (Katzung et al., 2012). Severe pain after ORIF surgery is treated with analgesic drugs, but 50% of patients still feel pain and require non-pharmacological pain management (Priliana & Kardiyudiani, 2014). According to observation at hospitals in South Sumatera, Indonesia, 67% of the studied patients still complained of pain and swelling of the area around the operation on days 3 and 4 after ORIF surgery. The nurse's role as a health care team member in providing intervention to promote comfort and pain management is of great importance.

Physiological positioning and limb immobilization after ORIF surgery can be adopted as nursing intervention to reduce swelling and pain. Extremity elevation aims to minimize skin tension in the injured area and reduce swelling, thereby decreasing local pressure in the swollen area and ameliorating pain (Wilkinson & Ahern, 2012). The elevation degree can be adjusted to the height of the heart or as high as 20° to assist the veins in returning blood from the injured area to the heart to avoid blood pooling or accumulation in the injured area and improve arterial circulation (Solomon et al., 2010). Schnetzke et al. (2017) adopted elevation for 24 hours in the preoperative and postoperative period, with the time adjusted to the soft tissue swelling that occurred. Al-Ashhab (2015) performed limb elevation in pediatric patients with intra-articular calcaneal fractures during the first week of postoperative. Although the effect of limb elevation has been reported and research on the effect of elevation on swelling recommend this strategy as a standard care after ORIF surgery, however the angle of elevation, elevation device, duration and schedule, and elevation procedure are still not standardized. The present work aimed to determine the influences of 20° elevation on the swelling and pain levels of patients after ORIF surgery for lower extremity.

Methods

This research is a quantitative study using a quasi-experimental design with one intervention group (pretest and posttest) and one control group. Subjects were post-ORIF surgery patients who were treated at a hospital in South Sumatera. Inclusion criteria were as follows: aged 18 years; fully conscious; post-ORIF surgery on the second day with fractures of the femur, tibia, or fibula; receiving opioid or non-opioid analgesic therapy. Exclusion criteria included hearing loss, comorbidities with diabetes mellitus, heart problems, kidney failure, fluid overload, elephantiasis, hypoproteinemia, fever (temperature 38.5°C), fracture of the collum femur, and history of psychological disorders. Respondents were informed about the research, including a description of the procedure, the objectives and benefits of the study, the advantages and disadvantages, and the confidentiality of the data of respondent. Respondents' participation is voluntary, and consent is given if they are will-

ing to participate in the research. This work passed the ethical review from the Faculty of Nursing (No. 40/UN2.F12D/HKP. 02.04/2019) and the research hospital (No. 71/kepkrsmhfkunsri/2019).

The research sample included 34 patients that divided into two groups. The first 17 respondents were designated as control and received 30 mg of intravenous ketorolac therapy every 8 hours. The remaining 17 respondents were labeled as intervention group who received 30 mg of intravenous ketorolac therapy every 8 hours plus an intervention of 20° elevation of lower extremities accompanied by alternating dorso-plantar flexion movements at the ankle (pumping action). Pretest-posttest data were collected on D+2 and D+4 after ORIF surgery. Pain measurement was carried out with the Numeric Rating Scale (NRS) 30 minutes after analgesic administration. Swelling circumference was measured using a tape measure where the upper leg (femur) was positioned in three places, namely, 5 cm above the greater trochanter, the midpoint between the greater trochanter and the tibial tuberosity, and 5 cm proximal to the tibial tuberosity. If the ORIF on the lower leg (tibia, fibula, or both) the measurement is performed at three places measured starting from the lateral malleolus, namely at a distance of 12, 20, and 30 cm, then the mean value is taken. Measurement points were marked with non-erasable markers to ensure measurements are always recorded in the same section.

In the intervention group, elevation was performed while the patient was in the supine position. The lower extremity undergoing ORIF was elevated at 20° using a special tool built from rebounded super foam material with Rounded Fiber Foam technology for 1 hour, accompanied by four times dorso-plantar flexion at the ankle. Afterward, the extremity was rested in a horizontal position for 1 hour. Movement pattern was repeated six times in one day and repeated the next day. Univariate and bivariate data analyses were performed using data processing software with t-dependent test, t-independent test, or Pearson correlation.

Results

The average age of respondents was 37.88 years in the intervention group and 37.53 years in the control group. Most of the respondents were male. Traffic accidents were the most common cause of fractures, and the upper leg was the most common location as described in Table 1.

As shown in Tables 2 and 3, the mean swelling circumference and pain level in both groups significantly decreased before and after the intervention ($p = 0.000$; $\alpha < 0.05$). As shown in Tables 4 and 5, the average decrease in swelling circumference and pain level in the intervention group was higher than that in the control group.

Table 1. Respondents' Characteristics

Variables	Categories	Intervention group		Control group		Total	
		n	%	n	%	n	%
Sex	Male	10	58.8	12	70.6	22	64.7
	Female	7	41.2	5	29.4	12	35.3
Orthopedic Surgery History	Yes	6	35.3	6	35.3	12	35.3
	No	11	64.7	11	64.7	22	64.7
Causes	Traffic accident	11	64.7	13	76.5	24	70.6
	Fall	4	23.5	3	17.6	7	20.6
	Pathologic disease	2	11.8	1	5.9	3	8.8
ORIF Location	Upper Leg	11	64.7	11	64.7	22	64.7
	Lower Leg	6	35.3	6	35.3	12	35.3

Table 2. Differences in Swelling Circumference Before and After Treatment

Variable	Group	n	Mean ± SD	Mean Differences ± SD	95% CI	p
Circumference of swelling	Intervention					
	Before	17	45.22 ± 6.71	4.49 ± 0.77	4.09 – 4.88	0.000*
	After		40.73 ± 6.75			
	Control					
	Before	17	47.92 ± 8.05	2.57 ± 0.70	2.21 – 2.93	0.000*
	After		45.35 ± 8.04			

*t-dependent test significant at α < 0.05

Table 3. Differences in Pain Level Before and After Treatment

Variable	Group	n	Mean ± SD	Mean Differences ± SD	95% CI	p
Pain level	Intervention					
	Before	17	5.76 ± 1.30	2.94 ± 0.97	2.44 – 3.44	0.000*
	After		2.82 ± 1.29			
	Control					
	Before	17	5.53 ± 1.23	1.65 ± 1.06	1.10 – 2.19	0.000*
	After		3.88 ± 1.22			

*t-dependent test significant at α < 0.05

Table 4. Differences in Post-treatment Swelling Circumference Between Groups

Variable	Group	N	Mean ± SD	Mean Differences ± SD	95% CI	p
Difference of Circumference of Swelling	Intervention	17	4.48 ± 0.76	1.93 ± 0.25	1.42 – 2.44	0.000*
	Control	17	2.55 ± 0.69			

*t-independent test significant at α < 0.05

Table 5. Differences in Post-treatment Pain Level Between Groups

Variable	Group	n	Mean ± SD	Mean Differences ± SED	95% CI	p
Difference of Pain Level	Intervention	17	2.94 ± 0.97	1.29 ± 0.35	0.59 – 2.00	0.001*
	Control	17	1.65 ± 1.06			

*t-independent test significant at α < 0.05

Discussion

Frequency distribution analysis showed that the average age of respondents was 37.88 years in the intervention group and 37.53 years in the control group. This finding is in accordance with the results of a descriptive–correlational study conducted in India (Thomas & Fatima, 2015), which reported that 85% of patients with lower extremity fracture were aged 21–50 years, and only 15% were over 50 years of age. The age range of respondents who experienced lower

extremity fractures in these two studies was mainly 15–64 years. This age group was included in the productive age group, a risk factor for traffic accidents causing lower extremity fractures. This population tends to have a high level of daily physical activity and mobility.

Lower extremity fractures were more common in men (64.7%) than in women (35.3%). Fractures due to traffic accidents are more likely to occur in males than in females (Ngunde et al., 2019). Pan et al. (2014) concluded that men are considered a significant risk factor for lower limb fractures due to traffic accidents. Their mobility, especially related to driving activities, is higher than that of women, resulting in a higher risk of traffic accidents that often lead to lower extremity fractures.

Among the respondents, 12 (35.3%) had previously experienced orthopedic surgery, including ORIF surgery, previous ORIF surgery, skeletal traction installation, and skin traction installation. Some patients with extremity fractures, especially those caused by traffic accidents, sometimes have multiple fractures that require more than one surgery. Most of the fractures were caused by traffic accidents, high-speed driving behavior that results in fatal accidents is the cause of the high incidence of fractures in men (Riyadina & Suhardi, 2009).

Most of the respondents underwent ORIF surgery in the upper leg area, namely, fractures in the femur (64.7%) and lower leg area (35.3%) such as the tibia, fibula, or both. When an accident occurs, the position of the bones of the upper limbs is more challenging to maintain than that of the bones of the lower limbs (Ayu, 2017). The position of the femur while driving a car is parallel to the location of the car's bumper. Hence, this bone is under pressure and receives high energy from the trauma, which can eventually lead to a fracture (traumatic fracture). Femur fracture due to a motorcycle accident is usually due to strong impact of the asphalt on the femur bone and being hit by a vehicle.

Swelling Circumference. Swelling after ORIF surgery usually occurs from days 1 to 5. Vasodilation and increased blood flow to tissues occur in this postoperative inflammatory phase. Hence, redness ensues in the trauma area. The permeability of blood vessels also increases, thus allowing fluid, protein, and white blood cells to move from the circulation to the site of tissue damage; as a result, accumulation and swelling transpire (Sherwood, 2012). In this study, the intervention and control groups intravenously received an anti-inflammatory therapy consisting of 30 mg of ketorolac every 8 hours. One of the functions of ketorolac is anti-inflammatory by inhibiting the attachment of granulocytes to damaged blood vessels, stabilizing lysosomal membranes, and suppressing the migration of polymorphonuclear leukocytes and macrophages to the inflammation site to prevent the accumulation of excessive plasma fluid, tissue cells, blood cells, and other substances in the injured area. In addition, swelling slowly decreases with the inflammation in the wound (Golan et al., 2008).

The initial focus of postoperative ORIF care includes sustained wound drainage and reduced fluid accumulation in the surgical area by maintaining limb alignment, elevating the surgical area of the extremity, and ensuring the dressing to be not constrictive (Lewis et al., 2011). Elevation of extremities after ORIF surgery can adequately increase blood flow through blood vessels to maintain tissue function and nerve ability in conveying sensory and motor impulses. In addition, counteracting the gravitational force leads to an increase in venous and lymphatic blood flow to the legs and thus reduce swelling (Singh et al., 2014). In this study, the combination of ketorolac administration and 20° elevation with an elevation device minimized the swelling circumference by 1.93 cm compared with that of ketorolac administration alone. These results are in line with the research of Vasanad et al. (2013), who stated that one of the best strategies for patients with tibial plateau fractures after ORIF surgery is to elevate the leg with a

range of motion angle of 0–20° for 2–5 days. Limb elevation involves the effect of gravity to reduce local edema when easily mobilized (Villeco, 2012). In the present study, the 20° elevation began on the 2nd day after ORIF surgery. The researcher was not able to control whether the respondent had carried out elevation on the 1st day by using stacked pillows or elevating the bottom of the bed, this setting can affect the decrease in swelling that occurred the next day.

Agarwal et al. (2013) studied the treatment management of closed tibia plateau fractures performed by percutaneous cancellous screw fixation, and they found that patients experienced complications such as infection, wound dehiscence, or other problems after good presurgical, during, and post-surgical management. One of the strategies was maintaining the extremities over the heart for 2 postoperative days. Positioning the legs by lifting them passively from a horizontal position will stimulate blood movement from the lower limbs to the intrathoracic compartment and reduce the hydrostatic pressure of the blood vessels. As a result, venous and lymphatic flow is increased to ultimately reduce capillary filtration pressure in the arteries (Marik et al., 2013). This phenomenon reduces the swelling circumference on the elevated lower extremity.

In this study, elevation intervention was accompanied by alternating dorso-plantar flexion movements at the ankle (pumping action) to pump the blood vessels. This action increased the peripheral blood flow resistance, blood flow, and venous flow, thereby stimulating reabsorption and draining fluid from the stagnant area (Kisner & Colby, 2012). Furthermore, a static muscle contraction compresses the veins, and the inflammatory fluid is brought to the proximal direction to participate in blood circulation and consequently reduce swelling (Thomas, 2011). The movement was carried out four times in one elevation.

Pain Level. Respondents in the intervention group of the present study reported the pain level, which was lower than in the control group. Ketorolac administration to all respondents aimed to reduce postoperative pain. In addition to being anti-inflammatory, ketorolac also acts as an analgesic in reducing moderate to severe pain (Oliveira et al., 2012). The combination of pharmacological and non-pharmacological management is expected to provide an enhanced pain reduction effect. In the present study, the intervention of 20° elevation of lower extremities accompanied by alternating dorsoplantar flexion movements at the ankle was performed to contract the quadriceps and hamstring muscles. Extremity elevation aims to minimize tension in the skin closure and reduce edema, which decreases local pressure in the swollen area and minimizes pain (Wilkinson & Ahern, 2012). Persistent muscle spasm or hypertonus and swelling increase tissue tension and muscle hypoxia, and result in pain (Black & Hawks, 2014). Xianfeng et al. (2013) evaluated the early postoperative complications of ORIF using a "soft tissue control" strategy for the surgical treatment of complex pilon fractures and concluded that one way to control soft tissue damage after ORIF surgery is through the early elevation of the extremity to minimize the tension of skin closure and reduce swelling. The pumping action in this study optimizes metabolism and local circulation due to vasodilation, thereby relaxing the muscles (Marlina, 2015). When muscle tension decreases, muscle sarcomere shortens due to spasm and begins to stretch, the muscle lengthens again and becomes relaxed, tension decreases, and pain is finally reduced (Kisner & Colby, 2012).

Patient comfort must also be considered when using an elevation device. In this study, the elevation device did not have an elevation angle that was extremely high due to the patient's comfort factor. Nevertheless, this tool can still restore the systemic circulation's physiological function. In addition, the recommended postoperative lower extremity elevation is 15–25 cm above the heart (Wilkinson & Ahern, 2012). The elevation tool only has one standard size. Hence, modifications to adjust the size of the

patient's extremities were made by placing towels on the right and left of the tool indentation to maintain the stability of their lower extremity upright position. The unstable position of the foot during elevation can worsen the pain.

Research Limitations. This study has several limitations, including not selecting a sample based on the number of fractures (single fracture or multiple fractures) that may affect the pain level. In addition, the indentation of the elevation device only has one standard size to allow the respondents with small lower extremities to use a towel on either side of the indentation to keep their lower extremities stable and immobile. Another limitation was that the elevation started on the 2nd day after ORIF surgery. Hence, the researcher could not control the possibility that the respondent had independently performed elevation on the 1st day that might affect swelling. Other limitations include the absence of investigation of swelling confounding factors such as the degree of difficulty of ORIF, the type and degree of fracture, pre-anesthesia physical status according to the classification of the American Society of Anesthesiologists (ASA), the incidence of bleeding, and the extent of wound.

Conclusion

Elevation accompanied by a combination of dorso-plantar flexion movements at the ankle can reduce swelling and pain in post-ORIF surgery patients. This intervention can be optimized as an alternative to independent nursing interventions to increase patient comfort and reduce the risk of complications, the use of severe anti-inflammatory-analgesic drugs, and hospital and patient costs. Once discharged, the patient can independently continue this intervention at home. Further research is recommended to use an extensive and varied sample size, modify the indentation on the elevation device with the sand method (sand pillow) whose shape will follow the size of the respondent's feet, and set a long time and a high frequency of elevation intervention.

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BRAIN GYM EFFECTIVELY REDUCES ANXIETY IN SCHOOL-AND PRESCHOOL-AGED CHILDREN IN HOSPITALS

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Abstract

Hospitalization-induced anxiety in children can impede healing and lengthen hospitalization. As such, appropriate interventions are needed to reduce their anxiety during hospitalization. For example, brain exercise has been shown to reduce anxiety in children in diverse settings and developmental stages. This study was performed to compare the effect of brain exercise on anxiety in hospitalized school-and preschool-aged children. A pre-experimental pre/ posttest design was used, and 32 children were selected by consecutive sampling. Brain gym was given twice a day for 2 consecutive days. Data were collected from school-aged children by using a modified Zung Sel-Rating Anxiety Scale and Tailor Manifest Anxiety Scale and from preschoolers by utilizing a modified Hamilton Anxiety Rating Scale observation sheet. Wilcoxon test results showed that brain gyms were effective in reducing anxiety in school-aged children ($p = 0.016$) and preschoolers ($p = 0.006$). Movements during brain exercises could activate the neocortex and parasympathetic nerves that can ease psychic and physical tension. Therefore, brain gym can be an effective intervention to decrease anxiety in preschoolers and school-aged children.

Keywords: anxiety, brain gym, preschoolers, school-age

Abstrak

Brain Gym Efektif Menurunkan Kecemasan Pada Anak Usia Sekolah dan Pra Sekolah di Rumah Sakit. *Kecemasan akibat rawat inap pada anak dapat menghambat penyembuhan dan memperpanjang rawat inap. Dengan demikian, intervensi yang tepat diperlukan untuk mengurangi kecemasan mereka selama dirawat di rumah sakit. Misalnya, latihan otak telah terbukti mengurangi kecemasan pada anak-anak dalam berbagai pengaturan dan tahap perkembangan. Penelitian bertujuan untuk membandingkan pengaruh senam otak terhadap kecemasan pada anak usia sekolah dan prasekolah yang dirawat di rumah sakit. Penelitian menggunakan desain pre-eksperimen pre/ posttest, dan 32 anak dipilih dengan sampel konsekutif. Senam otak diberikan dua kali sehari selama dua hari berturut-turut. Data yang dikumpulkan dari anak-anak usia sekolah menggunakan modifikasi* Zung Sel-Rating Anxiety Scale *dan* Tailor Manifest Anxiety Scale, *sedangkan data anak-anak prasekolah menggunakan lembar observasi modifikasi* Hamilton Anxiety Rating Scale. *Hasil uji Wilcoxon menunjukkan bahwa senam otak efektif menurunkan kecemasan pada anak usia sekolah (p = 0,016) dan anak prasekolah (p = 0,006). Gerakan pada saat senam otak dapat mengaktifkan neokorteks dan saraf parasimpatis yang dapat meredakan ketegangan psikis dan fisik. Oleh karena itu, senam otak dapat menjadi intervensi yang efektif untuk menurunkan kecemasan pada anak prasekolah dan usia sekolah.*

Kata Kunci*: kecemasan, prasekolah, senam otak, usia sekolah*

Introduction

Anxiety is a problem generally experienced by hospitalized children. About 25–38% of children experience long-and short-term hospitalization, and 7–40% of these children have unpleasant experiences and symptoms of anxiety (Meentken et al., 2021; Sen, 2020). In Indonesia, several studies have demonstrated that 50–80% of hospitalized children show an anxiety reaction (Juwita, 2019; Wilujeng, 2018).

Anxiety reaction caused by hospitalization is mostly due to separation from parents/relatives

/friends, loss of self-control, and fear of the pain they face. It has various manifestations due to hospitalization. Generally, children are fussy, restless, and whiny; they cry, scream, kick, and say rude things; they do not want to be separated from their parents and even refuse the presence of health workers (Chodidjah & Syahreni, 2015; Vianti, 2020).

Another problem is that children can also show regression behavior, dependence on parents, temper tantrums, and negativism. Several studies have demonstrated that hospitalization can cause posttraumatic stress symptom (PTSS) reactions that can continue even though children are no longer hospitalized after several years (Chodidjah & Syahreni, 2015; Meentken et al., 2021; Wilujeng, 2018).

Hospitalization reactions experienced by children can cause various negative impacts. For example, hospitalized children for more than 2 weeks have a risk of language disorders and poor cognitive skill development. In addition, these affect the treatment process and prolong the hospitalization stay because children refuse care and treatment (Claridge et al., 2020; Wilujeng, 2018).

Hospitalization provides an unpleasant experience to children because they are separated from their family, they are in an unfamiliar environment, and they experience pain sensations (Chodidjah & Syahreni, 2015). Hospitalization experience influences subsequent hospitalization reactions, and children who have had one or more hospitalization experiences show higher levels of anxiety and depression (Meentken et al., 2021).

Hospitalization in children can cause vulnerable conditions toward their development aspects, such as physical development, intelligence, and emotion. Therefore, children need interventions to help them adapt to hospitalization. Nursing interventions that can improve the adaptability of children during hospitalization are play therapy, information dissemination, relaxation techniques, distraction, music therapy, group therapy, and strategies to increase expectations (Barros et al., 2021). An example of play therapy is brain gym, which involves many muscles that can utilize the full potential of the brain through movement and touch (Adimayanti et al., 2019; Wilujeng, 2018).

Several studies on brain gym have been carried out in preschool- and school-aged children. For instance, a previous study compared the effectiveness of the brain gym in child-parent relationship therapy and found that the brain gym is effective in reducing mental-emotional problems in school-aged children (Moradi et al., 2020).

Another study on the effectiveness of brain gym in preschoolers demonstrated a decrease in anxiety score and cortisol level in hospitalized preschool children (Wilujeng, 2018). In addition, Dikir et al. (2016) observed that brain gym significantly affects the stress level of school-aged children. Therefore, brain gym is effective in school- and preschool-aged children. However, the effectiveness of brain gym on anxiety due to hospitalization has yet to be explored in these two groups.

Methods

A pre-experimental research design was used in this study. A total of 32 children consisting of 14 school-aged children and 18 preschool-aged children were sampled via consecutive sampling. The sample size was determined on the basis of the number of school- and preschool-aged children who were treated in the children's room during the time span of the study (1 month) and met the established criteria. The studied variables were anxiety in children before and after the brain gym intervention was given. Data were collected using a modified questionnaire of the Zung Self-Rating Anxiety Scale and Tailor Manifest Anxiety Scale in school-aged children and a modified Hamilton Anxiety Rating Scale observation sheet to assess anxiety in preschool-aged children. Cronbach's alpha reliability was 0.94.

Children were chosen as respondents if they satisfied the following inclusion criteria: aged 3–12 years, children who were treated in an inpatient pediatric room, children and parents who expressed their willingness to be involved in the study, and children who completed the entire series of interventions. They were excluded if they met the following exclusion criteria: preschool- and school-aged patients with impaired physical mobility such as fractures, paresis, and cerebral palsy because these limitations would cause bias to the intervention procedure. The included patients were grouped on the basis of age. Children aged 3–6 years were included in the preschool-aged group, and those aged 7–12 were placed in the school-aged group.

This study was conducted in two public hospitals in Makassar City. First, the anxiety scores of the hospitalized children were measured. Afterward, the children were included in the category of experiencing anxiety. The children and their parents were asked if they would participate in the study. If the children and their parents were willing to be respondents, a consent form was obtained. Each research subject was subjected to brain gym activities for 30 min twice a day for 2 consecutive days.

The brain gym intervention consisted of two stages: the preparation stage and the implementation stage. The preparation stage was composed of four components, namely, Positive, Active, Clear, and Energetic (PACE). The sequence of the preparation stage was described as follows: 1) the movement of the energetic component, namely, the activity of drinking water; 2) the movement of the clear component, namely, the activity of massaging the brain switch area (brain buttons); 3) the movement of the active component, namely, the activity of doing cross movements (cross crawl); and 4) the movement of the positive component, namely, the activity of relaxing oneself. The PACE movement was followed by other brain gym movements, such as the movement of pressing the earth button, the balance button, the space button, the thinking cap, and the energetic yawn (Dennison & Dennison, 2002). The illustration of the stages of the brain gym movement are given can be seen in Figure 1.

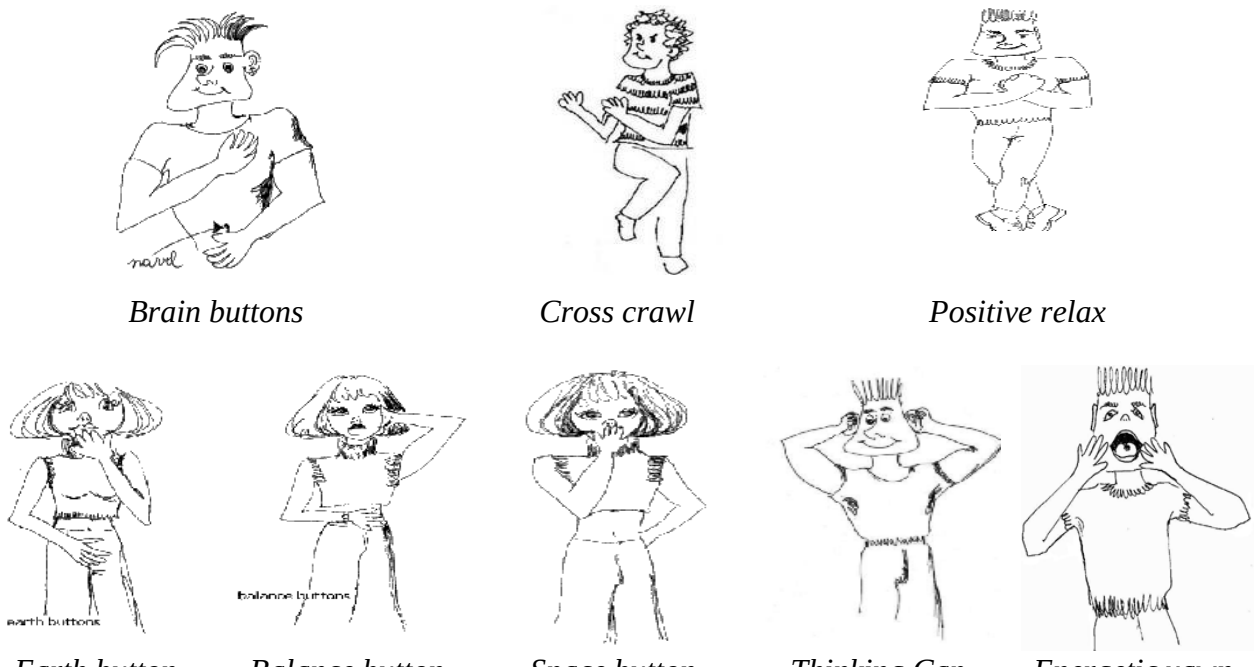

Figure 1. The Stages of the Brain Gym Movement (Widianti, 2011)

The intervention was given by two research members who were trained in brain gym and able to provide brain gym intervention according to the established procedure: one researcher for the school-aged group and the other for the preschool-aged group. The children who completed the intervention procedure were then evaluated for posttest measurement the next day by using the same instrument used in the pretest. The pretest and posttest measurements were carried out by the intervention provider. Data were then examined using Wilcoxon signed rank statistical analysis via a computer program.

Results

Respondent Characteristics. Respondents in the school-aged group were 14 patients dominated by children aged over 10 years. Those in the preschool-aged group were 18 patients dominated by children aged 6 years. The school-aged group was dominated by male respondents, and the preschool-aged group was dominated by female respondents (Table 1).

Effectiveness of Brain Gym on Anxiety in School-Aged Children. Wilcoxon rank statistical test yielded p = 0.016, indicating that brain gym was effective in reducing anxiety in school-aged children. The level of mild anxiety in school-aged children was observed in 2 children at the time of the pretest, and the level of moderate anxiety was detected in 12 children (Table 2). In the posttest, the levels of mild and moderate anxiety were found in 7 children each. Table 2 explains the differences in anxiety levels in school-aged children before and after being given the brain gym intervention.

Effectiveness of Brain Exercise on Anxiety in Preschool-Aged Children. In preschoolers, Wilcoxon rank test results yielded p value = 0.006, indicating that brain gym was effective in reducing anxiety in preschool-aged children. In particular, the number of children experiencing severe and moderate anxiety decreased after they were given an intervention (posttest), whereas the number of children with mild anxiety levels increased. Before the intervention, four

Table 1. Respondent Characteristics

Children characteristics	Preschool age		School age	
	n	%	n	%
Age				
5 years	5	27.8	-	-
6 years	13	72.2	-	-
7–9 years	-	-	5	35.7
10–12	-	-	9	64.3
Sex				
Male	5	27.8	10	71.4
Female	13	72.2	4	28.6

Table 2. Anxiety Levels Before and After Brain Gym at School Age

School-aged group	Anxiety level				p
	Mild		Moderate		
	n	%	N	%	
Pretest	2	14.2	12	85.7	0.016*
Posttest	7	50	7	50	

*Wilcoxon Rank Test

Table 3. Anxiety Levels Before and After Brain Gym at Preschool Age

Preschool-aged group	Anxiety Levels						p
	Mild		Moderate		Severe		
	n	%	n	%	n	%	
Pretest	8	44.5	4	22.2	6	33.3	0.006*
Posttest	17	94.4	0	0	1	5.56	

*Wilcoxon Rank Test

children had moderate levels of anxiety. After the intervention, no children suffered from moderate anxiety, and the number of children with severe anxiety decreased to 1. Table 3 explains the differences in anxiety levels in preschool-aged children before and after they were given the brain exercise intervention.

Discussion

Hospitalization is an uncomfortable situation that causes a decline in health condition because it is not in a family's social environment. If children are hospitalized, their family routines change, their development is altered, and they may experience anxiety (Gomes et al., 2016). Physical injuries and illnesses in children are events that have the potential to cause trauma to children and adolescents, and many children experience psychosocial difficulties after hospitalization. PTSS, depression, and anxiety are the most common symptoms experienced by hospitalized children. Therefore, pediatric nurses need to know the signs of stress in children and parents and should have the ability to overcome the impact of hospitalization on children (Meentken et al., 2021).

Anxiety consists of emotional conditions with psychological, social, and physiological components that can affect individuals at every stage of development. This condition is considered pathological when it is excessive or disproportionate in relation to the stimulus or qualitatively different from what would be expected in a given age group. Therefore, anxiety must be identified and treated as early as possible, especially when it is experienced by children undergoing hospitalization (Gomes et al., 2016).

Effectiveness of Brain Gym in School-Aged Children. Brain gym effectively reduced anxiety in school-aged children undergoing hospitalization. Their level of anxiety decreased from severe to mild and from moderate to mild. These findings were consistent with a study conducted on first-grade elementary school children who were given brain gym; their social anxiety scores decrease after the intervention (Prabowo & Khusnal, 2015). Another study on fifth-grade elementary school children has shown that stress levels in children decrease after they receive the brain gym (Dikir et al., 2016).

School-aged children undergoing hospitalization perceive that hospitalization is a punishment. They feel insecure, are separated from their daily environment, and have limitations in carrying out their activities independently. Children's mood decreases because of health and environmental conditions that differ from their usual daily habits. They also have limitations in responding to and solving problems properly. Children's reactions to hospitalization are influenced by factors such as age, experience of illness, separation, experience of being hospitalized, nature of the children, coping skills, emergency diagnosis, and support systems (Hockenberry et al., 2011).

Chodidjah and Syahreni (2015) conducted a qualitative study and observed that school-aged children experiencing hospitalization have several sources of stress and anxiety. For example, carrying out their routines is limited, they have an uncomfortable treatment room atmosphere,

they are not free to determine what they want, and they feel pain during treatment. Nevertheless, hospitalization also teaches children to develop their ability to cope with stressors. One of the efforts they make is playing games. This observation is consistent with this study, which provided brain gym in the form of active movements, such as playing, so that it could provide pleasure and help reduce stressors and anxiety in school-aged children.

Brain gym movements train the coordination and brain function requiring children's concentration to focus on thoughts and follow instructions through movements to balance the brain. The brain is stimulated by simple movements of the hands and feet. The stimulus from this movement affects the increase in the concentration, attention, alertness, and ability of the brain to plan, respond, and make decisions (Sulistiadi et al., 2020).

Brain gym provides simple, fun movements that can improve children's ability to reduce anxiety, stress, and depression, which are packaged by playing media so that they can appreciate all forms of movement by using the whole brain. Moreover, it provides relaxation to children and physical and psychological comfort, which are also expected to offer environmental and social comfort (Wilujeng, 2018).

The working principle of the brain gym is to activate the three dimensions of the brain, namely, concentration dimension, lateral dimension, and focus dimension. The concentration dimension can increase blood flow to the brain, thereby increasing the reception of oxygen, which can cleanse the brain, including clearing negative thoughts. The lateral dimension stimulates the coordination between the right and left parts of the brain so that it can reduce fatigue and improve breathing, stamina, and relaxation. The focus dimension helps release the inhibition of focus from the brain, thereby enhancing attention and concentration power (Sulistiadi et al., 2020).

Brain gym involves kinesthetic exercises, breathing, and massage on the body's energy centers. It aims to increase the oxidation of blood flow to the brain and the speed of nerve impulses between the hemispheres so that they can work together efficiently and increase mental capacity. This technique is helpful for those who have difficulty in focusing and adapting to new situations and experience stress and anxiety (Fadli & Kheddouci, 2018).

Anxiety causes an increase in the work of the sympathetic nervous system, which increases the production of the hormone adrenaline, resulting in an increase in tension in the membranes of nerve cells. The movements in brain gym increase energy and activate the neocortex so that it can refocus electrical energy to the nerve center for positive thinking. This mechanism further activates the parasympathetic system and reduces the release of adrenaline. Brain gym activities make the parts of the brain work well together to improve children's memory, optimize fine motor skills, increase concentration, and keep the body relaxed (Dikir et al., 2016).

Effectiveness of Brain Gym on Preschool-Aged Children. The anxiety level of the hospitalized preschool-aged children significantly decreased after they had the brain gym. These results were consistent with previous findings on brain gym conducted on hospitalized preschool-aged children. For example, Adimayanti et al. (2019) demonstrated that anxiety scores in the intervention group significantly decrease compared with those in the control group. They also found a decrease in the average cortisol level, where the mean cortisol value before the brain gym intervention is 570.20, which decreases to 67.81 after the brain exercise intervention. In addition to the mean cortisol, anxiety scores of preschoolers decrease (Wilujeng, 2018).

Gomes et al. (2016) found that some aspects can suppress and threaten children when they are in a hospital environment. Children feel deprived of family and social interactions; consequently, they have to interact with a strange en-

vironment. Moreover, they have to undergo invasive procedures and experience pain. They have to stop their recreational activities partially. Therefore, preschool-aged children undergoing hospitalization are susceptible to stress and anxiety.

Anxiety in preschool-aged children must be addressed immediately because it can prevent children from undergoing treatment, thereby worsening their condition. One of the effective interventions to deal with stress in children is playing. Activities that use multiple muscles can help children release tension (Hockenberry et al., 2011).

They can be performed by providing a safe and structured environment that helps develop and maintain daily routines and thus reduces clinical anxiety in children. Daily routines that can be carried out are eating nutritious foods, getting enough sleep, watching television, playing games with limited time, and doing physical activities that manage feelings of depression and anxiety in children (Beyondblue, 2014).

Preschool age is an appropriate age to be given the brain gym. In this period of development, children can follow the commands of simple movements (Wilujeng, 2018). Brain gym is a play activity involving a collection of simple movements that require many muscles. It aims to connect and coordinate the body and the mind. Furthermore, it can improve children's abilities and reduce anxiety due to hospitalization with a play approach. It can also provide relaxation, which is physical and psychological comfort to children (Dennison & Dennison, 2002; Fadli & Kheddouci, 2018).

Brain gym is an intervention that can be performed to overcome anxiety disorders by initiating the movement of drinking water, cross movement, earth button, space button, balance button, relax hook, and energetic yawn (Fadli & Kheddouci, 2018). Movements in brain gym can stimulate the neocortex and parasympathetic nerves to inhibit the release of adrenaline that can reduce psychological and physical tension in children (Dennison & Dennison, 2002). The movements in brain gym are claimed to produce endorphins, which are endogenous morphine functioning as a natural sedative produced by the body, causing a comfortable effect, reducing anxiety, and eliciting calming sensations (Prabowo & Khusnal, 2015).

This study has limitations. Several factors that could cause a research bias were not controlled because of the limited number of respondents when this study was conducted. These factors included differences in the type of disease experienced by the patients and the patient's sociodemographic condition. Thus, further research should be performed to better control these factors.

This study has implications for the field of nursing services, where brain gym can be one of the nursing interventions to reduce anxiety in hospitalized school- and preschool-aged children. In addition, the results of this study can be used as a reference for enhancing the understanding of the working mechanism of brain gym as an intervention in providing nursing care to children who experience anxiety.

Conclusion

This study shows that brain gym given for 30 minutes twice a day for 2 consecutive days is effective in reducing anxiety due to hospitalization in school- and preschool-aged children. Brain gym movements can activate the neocortex and parasympathetic nerves, thereby relieving psychological and physical tension. Therefore, this brain gym treatment can be an effective intervention in reducing anxiety in hospitalized school- and preschool-aged children.

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CHRONIC LIVER DISEASE LOWERING PHYSICAL AND MENTAL HEALTH DIMENSIONS

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Abstract

The most prevalent diseases within the world related to major illness and mortality are chronic liver diseases. The developing pervasiveness of chronic liver disease has resulted in increased interest in health-related quality of life, which incorporates the physical well-being of a patient and his emotional and social well-being. This study aimed to define the quality of life of patients with chronic liver disease. This study used the Quality-of-Life Short Form 36 Indonesian version to examine 102 patients with chronic liver disease from two hospitals with a descriptive design. The quality of life of the patients was comparatively low (M ± SD: physical, 42.4 ± 18.33; mental, 48.44 ± 17.19). On both the physical and mental health dimensions of quality of life, the patients in this study scored less than 50 on a scale of 0 to 100, with low scores indicating the low quality of life both physically and mentally. Improving quality of life necessitates a multidisciplinary strategy that combines physical and mental health screening and management. Surrounding support will encourage adaptive coping mechanisms to manage the illness for improving quality of life.

Keywords: chronic liver disease, cirrhosis, Indonesia, quality of life

Abstrak

Penyakit Hati Kronis Menurunkan Dimensi Kesehatan Fisik dan Mental*. Penyakit yang paling umum di dunia yang berhubungan dengan penyakit utama dan kematian adalah penyakit hati kronis. Penyebaran penyakit hati kronis yang berkembang telah menghasilkan peningkatan minat pada kualitas hidup yang berhubungan dengan kesehatan, yang mencakup kesejahteraan fisik pasien dan kesejahteraan emosional dan sosialnya. Tujuan dari penelitian ini adalah untuk menjabarkan kualitas hidup pasien penyakit hati kronis. Penelitian ini menggunakan* Quality-of-Life Short Form *36 versi Bahasa Indonesia untuk mengumpulkan data dari 102 pasien dari dua rumah sakit melalui desain deskriptif. Penelitian ini menunjukkan bahwa kualitas hidup pasien relatif rendah (M ± SD: fisik, 42,4 ± 18,33; mental, 48,44 ± 17,19). Pada kedua dimensi kualitas hidup yaitu kesehatan fisik dan mental, pasien dalam penelitian ini mendapat nilai kurang dari 50 pada skala 0 hingga 100, dengan nilai rendah menunjukkan kualitas hidup rendah baik fisik maupun mental. Peningkatkan kualitas hidup pasien memerlukan strategi multidisiplin yang menggabungkan skrining dan manajemen kesehatan fisik dan mental. Dukungan lingkungan akan mendorong mekanisme koping yang adaptif untuk mengelola penyakit dalam meningkatkan kualitas hidup.*

Kata Kunci*: Indonesia, kualitas hidup, penyakit hati kronis, sirosis*

Introduction

A disease that causes permanent alteration in the physical and mental function of a person is classified as a chronic disease or Non-Communicable Disease (NCD). The majority of deaths and disabilities worldwide are caused by chronic disease. Globally, chronic diseases have reached epidemic proportions, with the number of people suffering from it about 41 million each year, equivalent to 71% of all deaths in the world. In low and middle-income countries, 85% of premature deaths are due to chronic disease among those aged 30 to 69 years (World Health Organization, 2021). The risk of dying from chronic diseases was increased by tobacco use, lack of exercise, harmful alcohol consumption and an unhealthy diet. Chronic liver disease

(CLD) is the progressive destruction of the parenchyma over a period greater than six months, which includes synthesis of clotting factors, other proteins, detoxification of harmful products of metabolism, and excretion of bile, and it may produce varied symptoms and complications (Sharma & Nagalli, 2021). It tends to be hereditary or due to various factors that damage the liver, such as viral infections, toxins, or autoimmune processes (Sharma & John, 2021). The result of all CLDs is cirrhosis, an architectural distortion of the liver caused by the fibrous formation of regenerative nodules. Liver cirrhosis was responsible for over one million deaths in 2010, which equated to approximately 2% of all deaths around the world. In 2016, liver disease ranked 10th among the causes of death worldwide with 1.26 million that died of cirrhosis, CLDs, and their complications (Naghavi et al., 2017).

CLD, especially liver cancer, is a major health problem in developing and well-developed countries. East Asia and sub-Saharan Africa have recorded the highest age-adjusted incidence rates for CLD with over 20 per 100,000, according to a study by Zhu and colleagues. In particular, China reported 55% of all global hepatocellular carcinoma cases (Zhu et al., 2016). The rate of liver disease in Indonesia is relatively high. Studies have documented the increasing rate of liver cirrhosis in Indonesia. Liver disease in Indonesia is due to acute viral hepatitis, cirrhosis, liver cancer, and liver abscess. According to the Ministry of Health (Ministry of Health Republic of Indonesia, 2018), the number of patients with hepatitis was approximately 1.2% of the total population. These data showed that cirrhosis is the second most common liver disease after hepatitis (Sariani, 2010). Patients with cirrhosis comprise an average of 47.7% of all liver disease patients treated (Perhimpunan Peneliti Hati Indonesia, 2013).

CLD can frustrate autonomy and deplete the strength of individuals with disabilities, as it may create severe limitations on activity, contributing to lower quality of life. In patients with ceaseless liver infection, well-being-related personal satisfaction has become a significant measure (Polis & Fernandez, 2015). Even though physical well-being has long been the essential objective of restorative care, the emotional and social well-being of patients has become more central as chronic diseases become more common in developed countries (Saffari et al., 2016). Emotional, social, and physical well-being are referred to as health-related quality of life. In patients with CLD, the significant impairment of health-related quality of life has become an essential outcome measure (Younossi & Henry, 2015). A study that investigated the impact of a variety of chronic diseases on QoL in primary health care patients in the low-middle countries (Cambodia, Myanmar, and Vietnam) reported that the highest summative QoL score was found among patients having dyslipidemia (63.2), followed by digestive diseases (57.7), liver disease (57.5), hypertension (57.4) and diabetes mellitus (57.1) (Pengpid & Peltzer, 2018). It is needed specifically to investigate QoL of patients having liver disease

Methods

A descriptive study design was used in this study to determine the quality of life of patients with CLD in North Sumatra, Indonesia. The researcher utilized a quantitative approach to recognize the demographics and quality of life of the patients from two hospitals. For the study population, descriptive statistics were calculated. Consecutive sampling was applied to recruit patients with CLD according to the following criteria inpatients or outpatients with CLD older than 18 years old, who was able to answer the questions on the questionnaire (compos mentis), and able to be examined in Indonesian (they demonstrated their capacity when inquired to fill out the demographic information on the questionnaire). They had to complete an informed consent form to participate in the study.

A total of 102 patients were recruited from two general hospitals in North Sumatra, which were from an urban and rural areas. Quality of life

was measured using the Quality-of-Life Short Form 36 (SF 36) from the Medical Outcomes Study developed by RAND. The Indonesian version has been translated and back-translated by "Salim, Yamin, Alwi, and Setiati" (Salim et al., 2017). This instrument divides quality of life into two categories: physical and mental health. The internal consistency reliability of the Indonesian version of the questionnaire, as measured by Cronbach's alpha, was adequate, with a value of > 0.70. Its validity score was good (r = 0.626; p = 0.003). In this study of patients with CLD, the quality-of-life questionnaire had a Cronbach's alpha of 0.92.

This study was examined and approved by the institutional review boards of the National Taipei University of Nursing and Health Sciences, the Universitas Sumatera Utara, and each of the hospitals utilized as research sites with ethics number 1517/VI/SP/2018. Once the researcher received the Institutional Review Board (IRB) from each of the institutions, data were collected from the respondents.

Results

Table 1 shows the demographic of the respondents. The mean age of the respondents was 46.04 years old, with the youngest being 18 years old and the oldest being 88 years old. The age group of 41–60 years old had the most respondents (n = 48, 47.1%). Males (n = 54) comprised 52.9% of the total population. In terms of education, 82.4% of respondents (n = 84) were classed as having a poor level of education. The majority of the respondents were self-employed with a total of 86.3% (n = 88). Married respondents accounted for 83.3% (n = 85) of the total. For half of the respondents (50%, n = 51), the duration of CLD since determination was less than 1 year (more than 6 months). Concerning religion, the majority of the respondents were Christians, with 62.7% (n = 64) of the total. Notably, the highest ethnicity among the respondents was Batak, accounting for 72.5%. A slim majority of respondents (54.9%) had monthly salaries less than 1.500K IDR. The youngest age group showed better quality of life in the physical and mental health dimensions than the other age groups. In terms of physical health, married respondents had a better quality of life than single people; however, interestingly, in terms of mental health, married people had lower quality of life than single respondents.

Quality of life was tested using SF 36, which separates health into two parts: physical and mental. In the SF 36 Questionnaire, scores range from 0 to 100, with higher scores demonstrating the better quality of life. Quality of life was divided into physical and mental health (Table 2). The mean mental health score was relatively low at 48.44 (SD = 17.19). Mental health included four subscales. The lowest score on the mental health subscales was for an emotional role, with a mean score of 24.85. The highest mean score at 60.98 was for emotional well-being. The mean physical health score was 42.41 (SD = 18.33), with the highest score on the bodily pain subscale (M = 54.17) and the lowest score on the physical role subscale (M = 20.10). The mean mental health score was higher than the mean physical health score in this study population.

Discussion

The mean age of the respondents in this study was 47 years old, which was comparable with the average age of 72 cirrhosis patients studied by Alavinejad et al. (2019) in Iran. The outcomes of this study and another study showed that patients over 40 years old were more likely to have CLD than those in the other age groups. In terms of physical and mental health, the younger age group had a higher quality of life than the older age groups. Stepanova and colleagues (Stepanova et al., 2018) likewise found that age significantly affects the QoL. Most elderly adults suffer from chronic conditions, which pose a negative impact on their QoL because of physical inability and concerns (Somrongthong et al., 2016).

Table 1. Quality of Life with Physical and Mental Health Subscales

Variable	n (%)	Physical Health (*M* ± *SD)*	Mental Health (*M* ± *SD)*
Age (years old)			
20 – 40	39 (38.2)	51.69 ± 17.58	54.59 ± 17.39
41 – 60	48 (47.1)	37.86 ± 17.09	46.14 ± 17.14
>61	15 (14.7)	32.83 ± 13.93	39.78 ± 10.95
Gender			
Male	54 (52.9)	40.87 ± 18.46	48.45 ± 16.40
Female	48 (47.1)	44.15 ± 18.21	48.42 ± 18.21
Educational background			
Lower education	84 (82.4)	40.40 ±17.45	47.96 ± 17.12
Higher education	18 (17.6)	51.18 ± 20.33	48.60 ± 16.07
Occupation			
Self employed	88 (86.3)	42.19 ± 17.65	48.43 ±16.99
Civil employer	14 (13.7)	43.84 ± 22.85	19.08 ± 5.09
Marital status			
Single	17 (16.7)	39.77 ± 16.96	46.64 ± 17.04
Married	85 (83.3)	55.62 ± 19.69	15.46 ± 3.75
Duration since diagnosis			
<1 year	51 (50)	43.28 ± 17.19	50.73 ± 17.77
>1-2 year	33(32.4)	40.96 ± 17.66	16.88 ± 16.88
>2 years	18 (17.6)	42.60 ± 23.07	43.74 ± 15.78
Religion			
Muslim	33 (32.4)	39.34 ± 22.00	45.80 ± 19.44
Christian	64 (62.7)	43.78 ± 15.45	49.52 ± 15.97
Others	5 (4.9)	45.25 ± 26.97	51.86 ± 18.20
Ethnicity			
Javanese	23 (22.5)	39.76 ± 21.59	46.87 ± 19.82
Batak	74 (72.5)	42.55 ± 17.46	49.27 ± 16.49
Others	5 (5)	52.63 ± 13.59	43.22 ± 16.57
Monthly income			
< IDR 1.500K	56 (54.9)	40.55 ± 14.31	46.25 ± 14.70
IDR 1.600K – 3.000K	30 (29.4)	41.31 ± 22.52	54.95 ± 20.25
> IDR3.000K	16 (15.7)	51.02 ± 20.88	54.96 ± 54.96

Table 2. The Subscales of the Quality-of-Life Short Form 36

Variable	*M*	*SD*
Quality of Life		
Physical Health	**42.41**	18.33
Physical functioning	50.25	28.99
Role-physical	20.10	30.27
Bodily pain	54.17	24.66
General health	45.15	15.13
Mental Health	**48.44**	17.19
Vitality	52.16	18.30
Social functioning	55.76	22.50
Role-emotional	24.85	35.31
Emotional wellbeing	60.98	17.40

A study in South Korea (Kim et al., 2018) found that respondents had similar demographic features to those in this study. Males made up the majority of the respondents (62.6%) according to Kim et al. (2018), possibly because alcohol consumption was higher among males than females. Batak's males are known for drinking *tuak* or palm wine, the traditional liquor in the region, at an early age. In North Tapanuli, usually, men who finish their work gather in the traditional shop in the afternoon. They chat, sing, play cards, chest and watch television while drinking *tuak*. Men, both young and old drinking in a shop, but rarely do women drink *tuak*. Osna et al. (2017) stated that chronic and excessive alcohol consumption produces a wide spectrum of hepatic lesions, the most characteristic of which are steatosis, hepatitis, and fibrosis/ cirrhosis.

Quality of life is defined by the WHO as a person's perception of their status in life with the way of life and value frameworks in which they live, as well as their goals, ambitions, guidelines, and worries (Vahedi, 2010). It is an overwhelming idea that is intricately influenced by physical well-being, mental state, personal beliefs, social ties, and connectedness to significant aspects of their condition (Vahedi, 2010). Health-related quality of life is an idea that identifies with a person's view of well-being status comparable to the way of life and worth frameworks in which they live, notwithstanding their desires, objectives, concerns, and expectations for everyday comforts (Tehranian et al., 2015). The general or worldwide significance of personal satisfaction and a general feeling of prosperity might be moored to a person's social and financial conditions, living plans, and network condition, similar to culture, individual qualities, joy, life fulfillment, and profound prosperity (Larsen, 2016).

In terms of marital status, married respondents had a greater QoL than single people in physical health. However, surprisingly, married people had a lower quality of life than unmarried people in terms of mental health. Married respondents are likely to eat at home, and their spouses may encourage better self-care compared with their counterparts. Having a spouse might mean having someone to help assist with physical limitations (Alavinejad et al., 2019; Pengpid & Peltzer, 2018). Mental health might be worse among married respondents because they have a greater responsibility than single respondents. Married respondents have to provide not only for their children but also other family members, raise children, pay bills, and deal with great expectations from the community, especially in the Batak culture (Silitonga, 2012). Kim and colleagues likewise demonstrated that marital status affects QoL, with married people scoring higher than single people (Kim et al., 2018).

In the physical dimension, the respondents who had higher education (college and master's degrees) had a better quality of life than respondents with lower education (those who completed junior high school and senior high school). In China (Gao et al., 2013), a study reported that education level did not contribute significantly to QoL. Better-instructed individuals normally have better well-being status, lower joblessness, and increasingly social associations, with overall life satisfaction (Powdthavee et al., 2015).

From this study, the QoL in patients with CLD decreased due to disease situations. The result of this study showed that the QoL in the physical health dimension was 42.41 and that in mental health was 48.44. The scoring system indicated that the higher the score, the greater the quality of life or better personal satisfaction. The quality of life score using SF 36 ranged from 0 to 100. The mental health score was better than physical health in this study. Several studies in the USA, China, Egypt, and Taiwan found that QoL among patients with CLD was diminished due to disease conditions (Abd El-Wahab, 2016; Chen et al., 2017; Derck et al., 2015; Gao et al., 2013). This result was quite similar to the findings of this study. In a study conducted in a different country with the same results, researchers explained that the impact of CLD was personal; human suffering, hospital costs, and

lost productivity all affected the quality of life (Saffari et al., 2016). Different findings are shown in a study in Iran that found that score of the QoL of liver disease patients in the physical health dimension and that in mental health were above 55 (Pengpid & Peltzer, 2018)

Several limitations were found during the implementation of this study. One of the limitations was that the respondents were only recruited from Adam Malik Hospital and Sidikalang Hospital from North Sumatra. This province is one of 34 provinces in Indonesia. Thus, the sample was not representative of adult CLD in Indonesia. Another limitation was the short data collection time, which limited the number of respondents involved. The distance between Adam Malik Hospital was also quite far from Sidikalang Hospital, which created difficulties for the researcher. The same study should be conducted in another area. Given that Indonesia is a large country with a big population, the results must be compared with another island of Indonesia with different backgrounds. Comparing the quality of life with the healthy population will also provide strong findings to increase the quality of life in patients with CLD and to stress the importance of quality of life.

Conclusion

Quality of life is generally low in patients with CLDs. A better understanding of patients with CLD can assist patients living with the disease to increase their quality of life. In this study, the physical and mental health dimensions of quality of life of the Indonesian patients with CLD scored less than 50 on a scale from 0 to 100, with low scores illustrating the low quality of life in physical and mental health. This finding needs to continue to the next studies that investigate other factors that contribute to the QoL of CLD patients and seek the proper strategy to encourage the patient to apply positive coping mechanisms in managing the disease to increase the QoL in all dimensions. Multidisciplinary health care providers need to pay attention to QoL patients with chronic diseases, including CLD.

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LIFE SATISFACTION AMONG FILIPINO OLDER ADULTS LIVING IN THE COASTAL AREA

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Abstract

Perhaps an all-encompassing aspiration of everyone who has ever walked the earth is to have lived his/her life to the fullest. However, the life experiences of each individual are the products of the decisions they make. This study aimed to investigate the relationship of older adults in Cabulijan, Tubigon, Bohol, Philippines' self-esteem, social provisions received from other people, and relationships with other people to the level of their life satisfaction. Specifically, it sought to address the following queries: Is there a significant relationship between self-esteem, social provisions received from other people, and relationships with other people, and relationships with other people and the level of life satisfaction of older adults? Which of the factors of self-esteem, social provisions received from other people, and relationships with other people significantly contribute to the level of life satisfaction of older adults? Fifty respondents 65 years and older comprised the respondents of this research. The method used was cross-sectional explanatory design. Frequency, percentage, weighted mean, and Spearman's rank correlation were the statistical tools applied in this study. The findings indicate support for the research hypotheses advanced in this study that posited the existence of a significant relationship between social provisions received from other people and relationships with other people, respectively, tended to manifest higher life satisfaction. This implies that the research respondents with higher ratings of each of the social provisions received from other people and relationships to other people tend to maintain higher life satisfaction whereas self-esteem has been found out to be of no significant relationship with life satisfaction.

Keywords: life satisfaction, older adults, relationships, self-esteem, social provisions

Abstrak

Kepuasan Hidup Lansia Filipina yang Tinggal di Wilayah Pesisir. *Kehidupan yang berkualitas merupakan dambaan semua orang. Namun, kesempatan tersebut tidak dapat dirasakan oleh semua orang karena pada hakikatnya, kehidupan yang berkualitas sangat bergantung pada pilihan hidup tiap individu. Penelitian ini bertujuan untuk mengidentifikasi hubungan antara* self-esteem *pada lansia di Cabuljan, Tubigol, Bohol, Filipina, dukungan, dan hubungan sosial terhadap tingkat kepuasan hidup pada lansia. Penelitian ini juga berfokus menjawab beberapa pertanyaan penelitian sebagai berikut: apakah terdapat hubungan yang bermakna antara* self-esteem*, dukungan sosial, dan hubungan sosial serta tingkat kepuasan hidup pada lansia? Manakah di antara faktor-faktor, seperti* self-esteem*, dukungan, dan hubungan sosial yang sangat berpengaruh terhadap tingkat kepuasan hidup pada lansia? Sebanyak 50 responden dengan rentang umur 65 tahun ke atas bersedia untuk menjadi responden pada penelitian ini. Metode yang digunakan ialah penelitian eksplanatori dengan desain* cross-sectional*. Kemudian, instrumen statistika penelitian yang digunakan ialah seperti frekuensi, persentase, rata-rata tertimbang, dan* Spearman's rank correlation*. Pada penelitian ini ditemukan bahwa hasil penelitian mendukung hipotesa penelitian yang menyebutkan bahwa terdapat hubungan yang bermakna pada dukungan dan hubungan sosial dengan kepuasan hidup yang tinggi. Hal ini mengindikasikan bahwa para responden dengan dukungan dan hubungan sosial yang tinggi memiliki kepuasan hidup yang tinggi juga, namun ditemukan juga bahwa* self-esteem *tidak memengaruhi tingkat kepuasan hidup pada lansia.*

Kata Kunci: *dukungan sosial, hubungan sosial, kepuasan hidup, lansia,* self-esteem

Introduction

"Satisfaction is not always the fulfillment of what one wants; it is the realization of how blessed that person is for what he has" (Ackerman, 2020). Accordingly, satisfaction with life involves a total scoring of one's existence that incurporates attitudes and feelings at a certain point,

which range from positive to negative. There are three indicators of well-being, namely positive affect, negative affect, and life satisfaction (Gilmar, et al, 2000).

When a person is satisfied with his life, happiness follows. One can ascertain that someone's life is well spent by assessing how that person experiences life in accordance to what he went through and on how he engages with particular life scenarios; he can either be happy or the other way around. The world population is aging rapidly as reported in the news and reflected in statistics. Based on The United States Census Bureau's report, the older adult population was 7% or more of the total population in many countries and this number will increase more than 60% in 15 years (He et al., 2016). This celebrated issue places the well-being of older people in the limelight, wherein the conceptualization that being "old" is a blessing, a gift, and a triumph has blossomed. Older adults are believed to have an edge in dealing with what life has to offer based on the journey that they have gone through. Addressed as senior citizens about their chronological age, older adults can best assess their lives through retrospection. Abraham Maslow's hierarchy of needs theory states that motivations in the achievement of needs occur at certain times and that some needs take precedence over others (McLeod, 2020). At this point, it is worth mentioning that older adults have trod the path upon which the specific needs shared by Maslow through his theory have been experienced.

Worldwide records showed that there are 893 million people who are aged 60 years and older, and it is estimated that a rise in the number of this population will happen in the year 2050 (Cire, 2016). At that time, there will be a tremendous increase in economic and social demands worldwide for this age group. Governments all over the world, therefore, have to formulate workable strategies, implement programs, and enact policies to contribute positively to the life quality of this baby boomer generation (Knickman & Snell, 2002).

In most developed countries in the world, 65 years is the accepted chronological age to be considered an "elderly"-which is also approximately the same period when older adults begin to receive pension benefits. However, there is no criterion set by the United Nations as the standard numerical age for this population. Nonetheless, the consensus has been that 60 years and up is the cut-off age for one to be referred to as an older adult (The United Nations High Commissioner for Refugees [UNHCR], 2018).

This study is anchored primarily to Abraham Maslow's hierarchy of needs theory. He introduced this concept in 1943 in his paper entitled "A Theory of Human Motivation," which was modified from his book that was originally called "Motivation and Personality." In his work, he explained how people are motivated to fulfill their basic longings and wants before advancing to the next level. Maslow attempted to determine what made people happy and how this happiness came to be realized based on the actions of people. He asserted that before reaching the peak which is self-actualization, a person must first fulfill the lowest level of the pyramid. The lowest level constitutes the most basic needs of humans, such as water, food, sleep, and warmth. Once the lowest level has been satisfied, the second level, which comprises love and belonging, must be met. Thereafter, one can step up to the third level, which is allocated for safety and security. The fourth level of the pyramid comprises self-esteem and self-actualization, the topmost of Maslow's theory (Cherry, 2020).

Meanwhile, Hildegard Peplau's interpersonal relations theory puts the spotlight on the individual who tries to reduce the anxieties brought about by his wants and needs, the environment which comprises forces outside of the person, including his/her culture and health, symbolizing the positive flow of personality and some other production processes, constructive, creativity, personal growth, and development and how he thrives in his community. Peplau's theory mainly highlights the interpersonal relationships of the geriatric while simultaneously des-

cribing the different roles exercised by the professional nurse while assisting. The nurse and the patient work hand-in-hand to identify and resolve the latter's health problems. The nurse, in general, should use effective tools for communication and provide answers to clarifications. He/she must be accepting. The nurse has to remember the six key nursing roles, namely, advisor, substitute leader, stranger, resource provider, and teacher, all of which need to be adopted by the nurse when relating to the patients/ clients (Arkansas State University, 2018).

A literature review on a study of life satisfaction stated, "Authentic happiness sprouts from the satisfaction of deeds which are thoroughly performed and of seeing things to be beautifully crafted" – Antoine de Saint-Exupery. In 1960, the term "quality of life" came into existence, which introduced the idea that material gratifications cannot equate to life happiness but there are many factors that can be considered contributors to one's happiness and life satisfaction (Ackerman, 2020).

Ruut Veenhoven states that life satisfaction is synonymous with happiness and subjective well-being. However, the term "satisfaction of life" has a great advantage over the two terms as the former does not only measures subjective emotions but also looks at the overall evaluation of life (Veenhoven, 2012). This study aimed to investigate the relationship of older adults in Cabulijan, Tubigon, Bohol, Philippines' self-esteem, social provisions received from other people, and relationships with other people to the level of their life satisfaction. Specifically, it sought to address the following queries: Is there a significant relationship between self-esteem, social provisions received from other people, and relationships with other people, and the level of life satisfaction of the older adults? Which factors among self-esteem, social provisions received from other people, and relationships with other people significantly contribute to the level of life satisfaction of older adults? The research hypothesis is that life satisfaction is affected by self-esteem, social provisions received from other people, and relationships with other people.

Methods

The method was a cross-sectional explanatory design. Ethics clearance was obtained from the institutional ethics reviewer. Multiple forms were accomplished to ensure safety and confidentiality for the respondents. For almost a month, the ethics reviewer scrutinized the study until approval was finally issued for its conduct. This study gathered data at a single period and explained the relationship between three independent variables and one dependent variable. The scope of the study was limited to *Purok* 3, Sitio Redland of Barangay Cabulijan, Tubigon, Bohol, the Philippines for accessibility to both the researcher and the respondents.

The whole population was utilized as the sample. Barangay Cabulijan of Tubigon, Bohol, Sitio Redland, Purok 3 was the setting of the study. This was also the location where the respondents were chosen. Barangay Cabulijan consists of six *Purok* with a total land area of 157.4208 hectares. It is situated 2.037 kilometers away from the town proper. Mater Dei College is in Sitio Redland. Many great landmarks could be seen here. In 2019, it had a total actual population of 2,540 and an actual total household of 598. Fifty respondents aged 65 years and above were the targeted respondents in this study. Nineteen of the respondents were males and 31 were females. Their names were taken from the official census of the Barangay Health Center's logbook. The chosen tools were adopted from related studies where they were utilized as research instruments. The Index of Life Satisfaction (LSIA) measures the feeling of satisfaction on well-being to identify "successful" aging in older people. The authors of this instrument are Franchignoni, Tesio, Ottonello, and Benevolo (Neugarten et al., 1961). The Self-Esteem Questionnaire was created by Dr. Morris Rosenberg (1965), the Social Provisions Scale was advanced by Carolyn E. Cutrona and Daniel W. Russell (1987), and the Relationship

Scale Questionnaire was authored by Bartholomew and Horowitz (1991). After the approval of the barangay captain of Cabulijan, Tubigon, Bohol to conduct this study among the aged constituents of his jurisdiction was obtained, the questionnaires was distributed to 50 respondents aged 65 years old and above who are residents of Tubigon, Bohol. They were chosen for accessibility reasons, and they represented the whole population of this age group in the community.

Data collection was conducted as follows. First, the respondents were asked to give their voluntary consent for their participation in the study. An explanation about the study was shared with the respondents. Then, the questionnaires were distributed to elicit the needed responses. The data gathered were sorted, analyzed, and interpreted. Thereafter, the data were presented in a table using frequencies and percentages. Spearman's rank correlation was used to determine the relationship between each of the factors of self-esteem, social provisions received from other people, and relationships with other people, and life satisfaction.

Results

The respondents' demographic profiles consisted of male and female older adults aged 65 years and above, coherent, and residents of Barangay Cabulijan. Table 1 shows that 78% of the respondents indicated that they have life satisfaction, and 88% have self-esteem. On the social provisions from other people, 58% stated that they received such provisions, while 42% did not. A slight difference was noted on Relationship With Other People, as 52% indicated having relationships with other people while 48% did not, showing that the number of respondents who have relationships with other people is almost equal to those without relationships with other people.

Table 2 shows the positive correlation coefficients of each of the independent variables of self-esteem, social provisions, and relationship with others when pair-wise correlated with the dependent variable life satisfaction. Self-esteem has weak a positive correlation coefficient with Spearman's ρ of 0.24, which is within the critical value interval of ± 0.28. This results in the non-rejection of the null hypothesis of the non-existence of a significant relationship between self-esteem and life satisfaction. On the other hand, each of the independent variables of social provisions and relationship with others has a moderate positive correlation with life satisfaction. Moreover, since a Spearman's ρ of 0.51 for social provisions and a Spearman's ρ of 0.35 for relationships with others are beyond the critical value interval of ±0.28, the null hypotheses of the non-existence of a significant relationship

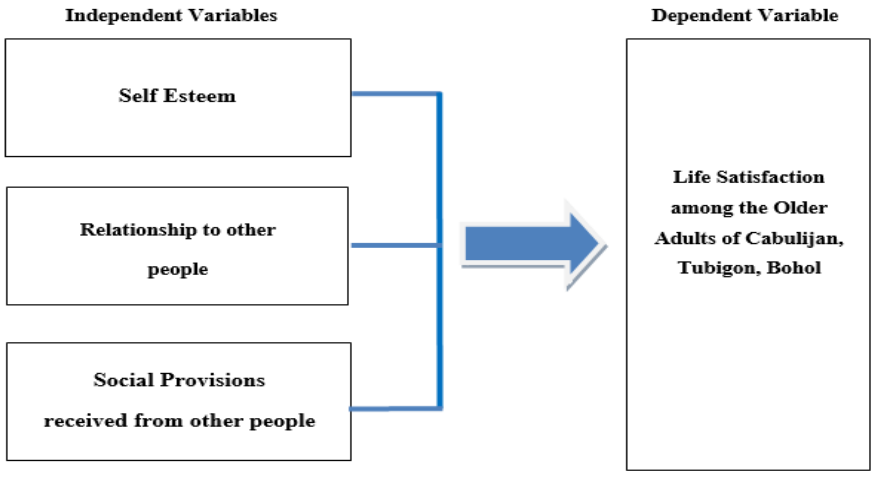

Figure 1. Schematic Diagram Showing the Relationship of the Independent and Dependent Variables

Table 1. Distribution of Respondents Among the Four Variables

Variables	Frequency	Percentage (%)
Life Satisfaction		
Strongly Agree	1	2
Agree	39	78
Disagree	10	20
Strongly Disagree	0	0
Self-Esteem		
Strongly Agree	1	2
Agree	44	88
Disagree	5	10
Strongly Disagree	0	0
Social Provisions from Others		
Strongly Agree	0	9
Agree	29	58
Disagree	21	42
Strongly Disagree	0	0
Relationships with Others		
Strongly Agree	0	0
Agree	26	52
Disagree	24	48
Strongly Disagree	0	0

Table 2. Pairwise Correlation Summary of Self-Esteem, Social Provisions Received from Other People, and Relationship with Other People on Life Satisfaction

Independent Variables	Critical Value Intervals	Spearman's ρ	Lower 95%	Upper 95%	Decision on H0	Relationship Significance
Self-Esteem	±0.28	0.24	-0.04	0.54	Do not Reject	Not Significant
Social Provisions	±0.28	0.51	0.36	1.04	Reject	Significant
Relationships with Other People	±0.28	0.35	0.07	0.52	Reject	Significant

between social provisions and life satisfaction and between the relationship with others and life satisfaction are rejected. In light of the foregoing, the amount of evidence is sufficient to support the research hypotheses advanced in this study that a significant relationship exists between social provisions and life satisfaction and between the relationship with others and life satisfaction. This implies that the respondents with higher ratings in each of the factors of social provisions and relationship with others tend to manifest higher life satisfaction.

Discussion

The respondents agreed that they are satisfied with their lives, and the majority credit this to their relationships with other people and social provisions received from other people who have been present in their journey through life. In a study on older individuals, older adults perceive time as limited because of their relative proximity to death. Thus, their ultimate goals are focused around social relationships that seem more gratifying and enjoyable, as well as activities that are more meaningful, consistent with the prevailing motive to improve one's life experiences (Gana et al., 2013). Table 1 presents these two variables as almost always concurrent with each other because, in most studies, life satisfaction reflects how a person perceives and evaluates himself/herself. Likewise, the people

who attested that self-esteem was of great value found life to be not as satisfying as they enjoyed it. Social provisions received from other people and relationships with other people were almost equal in their percentages, as most of the respondents agreed to have savored these factors. The findings from the study "Self-esteem and Life Satisfaction among University Students of Eastern Uttar Pradesh of India: A demographical perspective" showed that the effect of self-esteem level on satisfaction is important because high self-esteem reflects an elevated satisfaction with life. Self-esteem is the reflection of a person's overall evaluation of his/her worth. It is a booster of life satisfaction. Higher self-esteem indicates more satisfaction in a person's life (Patel et al., 2018). However, in this study self-esteem was not directly related to life satisfaction among the older adult respondents.

The independent variables presented in Table 2, namely, self-esteem, social provisions from others, and relationships with others demonstrated that they contribute holistically to the well-being of a person. These three serve as constructs that can be used to gauge a person's satisfaction with life. They are significant variables that measure how a person lives a life of enthusiasm and fulfillment. Previous studies that support these findings include a study on the self-esteem and social relations of adolescents with learning disabilities, where 78 percent of the respondents felt that they were understood well by their friends; the research also indicated that 82 percent of the respondents felt that they were understood better by their parents because of a good relationship between their parents and their teachers (Abraham, 2010). These studies obtained results that were consisted of the views expressed by the respondent in the present research.

Social provisions received from other people and relationships with other people constitute the two variables that were significantly related to life satisfaction. This means that the elderly find that social provisions received from others and relationships with other people are two springboards from which they obtain strength and confidence as they journey through life.

In a study on social provisions, Weiss posited six types of social provisions as follows attachment, which he considers emotional support; social integration, in which a person belongs to a group with common interests; opportunity for nurturance or being a provider of care to others; the reassurance of worth by examining one's value; reliable alliance, which refers to access to assistance in times of need and guidance for the provision of advice when wanted (Chiu, et al., 2016). According to Weiss's theory, each type of support provision is embedded in a network of social connections, and multiple types of social provisions may occur in a single connection. Weiss further asserted that all six types of social provisions are crucial because if one is lacking, people may become at risk for social and/or emotional loneliness. This could lead to poor concentration, distress, tension, disturbed sleep, and disengagement, along with depression and generalized dissatisfaction.

Likewise, a study on life satisfaction related to relationships with other people concluded that strong support for the role of interpersonal relations in life-satisfaction had been observed among the Chinese elderly. Life satisfaction can vary substantially based on one's values and priorities, consequentially patterned by gender and one's place in the life course (Cheng, 2006). Self-esteem is not significantly related to life satisfaction, as it has a weak positive correlation coefficient with a Spearman's ρ of 0.24, which is within the critical value interval of ± 0.28. This results in the non-rejection of the null hypothesis of the non-existence of a significant relationship between self-esteem and life satisfaction (Suzanna, 2016).

This study is restricted in terms of the sample, namely, the elderly aged 65 years and above, and the location of the study, which is limited to the nearest Barangay for accessibility. The time frame was also narrowed down to a specified period to ensure the timely accomplishment

of the endeavor. However, this finding provides the understanding for the care providers how to create an environment where the people, especially older adults can achieve their satisfaction in their life.

Conclusion

The older adults of Cabulijan, Tubigon, Bohol, Philippines derive their level of life satisfaction from the social provisions that they receive from other people and their relationships with other people. Taken together, although the three independent variables are positively related to life satisfaction, social provisions received from other people and relationships with other people demonstrated significant relationships with life satisfaction. Spearman's rank correlation underscored the positive correlation coefficient of each of the independent variables of self-esteem, social provisions received from other people, and relationships with other people when pair-wise correlated with the dependent variable life satisfaction.

The learning from this evidence-based research is conclusive; this special age group required multiple interactions and socialization with people from all walks of life. Significant others, such as the elderly's family, relatives, and friends play a crucial role in fostering satisfaction in this age group. It is believed that older adults will continue to feel satisfied with their lives if they are consistently assured of being cared for by people whom they can lean on. Thus, it is recommended that a special recreational program with specific activities be formulated for them, including therapeutic communication sessions. This study may be replicated using a bigger sample size with variables that are more related to life satisfaction. Another avenue of research would be caregivers' experiences and attitudes in caring for the elderly.

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POST-STROKE QUALITY OF LIFE PERCEIVED BY PATIENTS AND CAREGIVERS

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Abstract

The quality of life (QOL) of post-stroke patients can be assessed from the reports of patients themselves obtained through a structured interview or a questionnaire. However, some individuals are unable to comprehensively describe their QOL because of language disorders, cognitive effects caused by stroke, or pre-existing conditions. This study aims to identify differences in post-stroke QOL perception between patients and caregivers. A cross-sectional design involving 115 stroke patients and 115 caregivers was adopted, and Mann–Whitney test was used for statistical analysis. Results showed no significant difference in QOL perception ($p = 0.166$; $\alpha < 0.05$), particularly in the physical ($p = 0.278$; $\alpha < 0.05$), psychological ($p = 0.068$; $\alpha < 0.05$), social relationship ($p = 0.976$; $\alpha < 0.05$), and environmental ($p = 0.157$; $\alpha < 0.05$) domains between patients and caregivers. Therefore, information from caregivers can be used to assess QOL when patients are incapable of reporting their condition.

Keywords: caregiver, perception, quality of life, stroke

Abstrak

***Kualitas Hidup Pasca Stroke yang Dipersepsikan oleh Pasien dan* Caregiver**. *Kualitas hidup pasien pasca stroke dapat diketahui berdasarkan laporan dari pasien stroke dengan wawancara terstruktur atau dengan pengisian kuesioner. Namun, beberapa dari pasien stroke tidak dapat menggambarkan kualitas hidup mereka karena adanya gangguan bahasa dan efek kognitif lainnya akibat stroke atau kondisi yang sudah ada sebelumnya. Penelitian ini bertujuan mengidentifikasi perbedaan persepsi kualitas hidup antara perspektif pasien pasca stroke dan* caregiver. *Penelitian ini menggunakan desain* cross sectional *yang melibatkan 115 pasien dan 115* caregiver *dengan menggunakan analisis statistik Mann Whitney. Hasil analisis menunjukkan tidak terdapat perbedaan secara signifikan antara persepsi kualitas hidup dari pasien dan* caregiver *($p = 0,166$; $\alpha < 0,05$), khususnya pada domain fisik ($p = 0,278$; $\alpha < 0,05$), psikologis ($p = 0,068$; $\alpha < 0,05$), hubungan sosial ($p = 0,976$; $\alpha < 0,05$), dan lingkungan ($p = 0.157$; $\alpha < 0,05$) dari kualitas hidup yang dipersepsikan oleh pasien dan yang dipersepsikan oleh* caregiver. *Informasi dari* caregiver *dapat digunakan saat pasien tidak dapat memberikan informasi terkait kualitas hidupnya.*

Kata Kunci: caregiver, *kualitas hidup, persepsi, stroke*

Introduction

Stroke is the leading cause of long-term disability (Singhpoo et al., 2012), the 2nd leading cause of death after ischemic heart disease, and the 3rd leading cause of disability in the world (World Health Organization [WHO], 2015). In Indonesia, WHO reported stroke as the first cause of death that killed 21.2% or 328,500 people in 2012 (WHO, 2015). In 2013, the number of stroke sufferers in Indonesia was estimated at 1,236,825 people (7.0‰) on the basis of the diagnosis of health workers alone and 2,137,941 people (12.1‰) on the basis of symptoms and the diagnosis of health workers (Ministry of Health Republic of Indonesia, 2014). Basic Health Research in 2013 states that the North Sulawesi Province is the area with the

highest prevalence of stroke (10.8‰) according to the diagnosis of health workers (National Institute of Health Research and Development, 2013).

This stroke condition causes neurological deficits and disability in patients that interfere with their daily activities. The prevalence of disability due to stroke is estimated at 33–460 per 100,000 population (Carod-Artal, 2012). Quality of life (QOL) is affected by neurological deficits and disability after recovery from diseases such as hemiplegia, impaired balance and ambulation, difficulty in swallowing and speaking, impaired visual perception, and loss of bowel and bladder control (Rachpukdee et al., 2013).

Health-related QOL is an important list of post-stroke patient outcomes. The QOL of post-stroke patients can be assessed from patients themselves through structured interviews or questionnaires. This measure is useful in understanding the patient's reaction to illness and in monitoring the effectiveness of health care interventions (Gbiri & Akinpelu, 2012). However, approximately 25% stroke survivors fail to report their status due to language or other cognitive deficits. Therefore, functional assessment from another individual, usually family members or physicians, is used to replace the patient's perspective (Jette et al., 2012). Family members are categorized as family or informal caregivers who are not paid or trained by an institution and are usually spouses, children, children-in-law, or close friends of the patient (Francois et al., 2014). These caregivers are expected to provide an assessment of their perceptions toward the QOL of stroke patients.

Vellone et al. (2011) assessed caregivers' reliability to measure the QOL of stroke patients and found that the average QOL from patients is similar to that from caregivers and ranges between 19.1 and 16.2 for the hand function domain and between 83.81 and 81.85 for communication domain. However, this study explained that caregivers tend to give a poor assessment of the patient's QOL, though the values were not significantly different. Only a few studies have attempted to identify differences in QOL perception between post-stroke patients and caregivers Therefore, differences in QOL perception between post-stroke patients and caregivers must be examined. The current work aims to identify the differences in QOL perceived by post-stroke patients and caregivers.

Methods

This quantitative research used a cross-sectional design to identify differences in QOL perception between post-stroke patients and caregivers. Non-probability purposive sampling was adopted. The total sample size was 115 caregivers and 115 patients. Inclusion criteria for post-stroke patients were as follows: old and new patients undergoing treatment at the neurology polyclinic, physical medicine polyclinic, and medical rehabilitation; ≥ 18 years old; good orientation of people, places, and times; no aphasia, no dysarthria, dementia, and Transient Ischemic Attack (TIA) based on medical diagnosis; accompanied by a caregiver; can read and write; can understand Indonesian; and willing to be a respondent. Exclusion criterion for patients was not having a partner. Inclusion criteria for caregivers were as follows: patients' partner; ≥ 18 years old; can read and write; can understand Indonesian; and willing to be a respondent. Exclusion criterion for caregivers was not living at the same home with the patient. Drop out criteria (could not be continued as a research sample) were established during the study as follows: suddenly experienced a health problem and withdrew from the study for some reasons.

Results

The majority of post-stroke patients and caregivers were categorized in middle adulthood. Table 1 shows that 85 post-stroke patients (73. 9%) and 87 caregivers (75.7%) are aged 41–65 years. According to frequency distribution on gender, the majority of post-stroke patients are

males (56.5%), and that of caregivers are females (56.5%). In terms of education background, 64 post-stroke patients (55.7%) and 63 caregivers (54.8%) graduated from senior/vocational high school. With regard to depression, 96 post-stroke patients (83.5%) and 101 caregivers (87 .8%) were in the null depression category.

Table 2 shows the results of Kolmogorov–Smirnov normality test. The data on the perception variable of QOL by patients ($p = 0.000$; $\alpha < 0.05$) and caregivers ($p = 0.000$; $\alpha < 0.05$) were not normally distributed. Thus, bivariate analysis was carried out using non-parametric statistical tests. Table 3 show no significant difference in the QOL perceived by patients and caregivers ($p = 0.166$; $\alpha < 0.05$). In particular, Table 4 shows no significant difference in the physical ($p = 0.278$; $\alpha < 0.05$), psychological ($p = 0.068$; $\alpha < 0.05$), social relationship ($p = 0.976$; $\alpha < 0.05$), and environmental ($p = 0.157$; $\alpha < 0.05$) domains of QOL perception between patients and caregivers.

Table 1. Characteristics of Respondents

Variable		Patient		Caregiver		Total	
		n	%	n	%	n	%
Age	Early adulthood (18–40 y/o)	4	3.5	5	4.3	9	4.8
	Middle adulthood (41–65 y/o)	85	73.9	87	75.7	172	73.9
	Late adulthood (> 65 y/o)	26	22.6	23	20	49	21.3
Gender	Male	65	56.5	50	43.5	115	50.0
	Female	50	43.5	65	56.5	115	50.0
Education	Low Education (with any education, graduated from elementary, graduated from junior high school)	18	15.7	24	20.9	42	18.3
	Senior/Vocational High School	64	55.7	63	54.8	127	55.2
	Higher Education (Diploma 3, Bachelor Degree, Master Degree)	33	28.7	28	24.3	61	26.5
Depression	Null depression	96	83.5	101	87.8	197	85.7
	Mild depression	16	13.9	12	10.4	28	12.2
	Moderate depression	3	2.6	2	1.7	5	2.2

Table 2. Quality of Life (QOL) Perceived by Patients and Caregivers

Variable	Group	N	Mean	Median	Min–Max	95% CI Min–Max
QOL perception	Patient	115	117.57	115	90–152	114.86–120.27
	Caregiver	115	114.80	113	74–152	112.14–117.46

Table 3. Differences in Quality of Life (QOL) Perceived by Patients and Caregivers

Variable	Group	n	p
QOL perception	Patient	115	0.166
	Caregiver	115	

**Mann–Whitney Test* ($\alpha < 0.05$)

Table 4. Differences in the Physical, Psychological, Social Relationship, and Environmental Domains of Quality of Life (QOL) Perceived by Patients and Caregivers

Variable	Group	n	p
Physical domain	Patient	115	0.278
	Caregiver	115	
Psychological domain	Patient	115	0.068
	Caregiver	115	
Social relationship domain	Patient	115	0.976
	Caregiver	115	
Environmental domain	Patient	115	0.157
	Caregiver	115	

*Mann–Whitney Test ($\alpha < 0.05$)

Discussion

In this study, the majority of post-stroke patients were 41–65 years old and thus categorized into middle adulthood. These results differ from the research of Purnomo et al. (2016), who found that the majority of 455 stroke patients (212 patients) were aged 60 years. Age is a risk factor of stroke i.e., the incidence of stroke increases with age. This condition is also highly threatening for the elderly. Elderly stroke patients have a higher mortality rate and receive lower quality of care than younger stroke patients (Pei et al., 2016).

The majority of post-stroke patients were male. This findings is in line with the study of Purnomo et al. (2016), who reported that 268 out of 455 stroke patients were males. By contrast, the participants in the research of Pinedo et al. (2017) were dominated by females (92 females out of 157 stroke patients). The justification for the study of Pinedo et al. (2017) differ from those of the current work and the research of Purnomo et al. (2016) due to their varying sample populations. Purnomo et al. (2016) used a male-dominant group; hence, the results reflected that men are relatively at risk of stroke. By contrast, Pinedo et al. (2017) employed a female-dominated population; hence, the results classified women as relatively at risk of stroke.

The majority of post-stroke patients (64, 55.7%) graduated from senior/vocational high school. Chuluunbaatar et al. (2016) also found the similar result that around 48% of post-stroke patients had a lower level of education than college. A strong education may be important in navigating health care and making choices about lifestyle and personal health behaviors (Zimmerman & Woolf, 2014).

The majority of post-stroke patients were in the category of null depression (83.5%). A systematic review and meta-analysis of 50 studies conducted by Ayerbe et al. (2013) revealed that the prevalence of depression was 29% (95% CI 25–32), which remained stable up to 10 years after stroke and had a cumulative incidence of 39–52% within 5 years of stroke (Ayerbe et al., 2013). Recovery rates from depression among post-stroke patients ranged 15–57% at 1 year after stroke. The main predictors of depression were disability, pre-stroke depression, cognitive impairment, stroke severity, and anxiety (Ayerbe et al., 2013). One of the most common and most problematic neuropsychiatric consequences is depression, whose incidence increases substantially after stroke (Carey, 2012). People with depression experience sadness, anxiety, and emptiness beyond what they can control (Carey, 2012) and often feel hopeless, guilty, worthless, irritable, and restless. They may also experience disturbances in natural functions such as sleep, appetite, initiative, and desire (Carey, 2012). High self-esteem and support from part-

ners contribute positively to patients. Hence, the status quo for post-stroke patients is no depression.

The majority of caregivers were in middle adulthood category (41–65 years). Kniepmann (2012) reported that the age of female caregivers ranges 22–65 years. By contrast, the National Alliance for Caregiving and AARP (2015) state that most caregivers are 18–49 years old. Caregivers who are in middle adulthood (41–65 years old) already have a mature age while providing care to post-stroke patients.

In this study, 56.5% of the caregivers are females. The dominance of female caregivers explains the role of women as service providers (Anjos et al., 2014). The majority of the caregivers graduated from senior/vocational school (63, 54.8%). This finding is in line with the data from the National Alliance for Caregiving and AARP (2015). Education is important in developing life skills and competencies, including how to care for stroke patients. Owing to their secondary school background, the caregiver respondents were assumed to have limited knowledge about stroke but have a tendency to comply with every provision in the care of stroke patients.

This research found that approximately 87.8% of caregivers did not experience depression. Meanwhile, the previous researches indicate the various percentage of caregivers who experienced depression, that is 18% (Balhara et al., 2012), 26.5% (Hu et al., 2018), and 71% (Guo & Liu, 2015). Further, Hu et al. (2018) stated that gender, time of care per day, and method of medical payment affect caregiver depression.

No significant difference in QOL perception was found between stroke patients and caregivers. This finding is in line with the study of Vellone et al. (2011), who identified the reliability of caregivers in assessing the QOL of stroke patients and found no difference in their QOL assessment. In particular, the current research found no significant difference in the physical, psychological, social relation, and environmental domains between patients and caregivers.

According to Vellone et al. (2011), the QOL assessment by patients in the domains of hand function and communication tends to be the same as that by caregivers. Physical function is another variable associated with stroke and affects the QOL of stroke patients. Stroke can limit the daily living activities of patients (Rouillard et al., 2012), which can then reduce their participation in work, household responsibilities, and social and recreational activities. As a result, the patients experience role changes, social isolation, and low emotional and mental QOL (Rouillard et al., 2012).

The perceived QOL of caregivers was poorer than that by stroke patients, though the results showed no significant difference. This finding is in line with the study of Vellone et al. (2011), who found that caregivers tend to give a low rating for the QOL of stroke patients. However, another research reported that caregivers give a high rate for the patient's QOL. Oczkowski and O' Donnell (2010) conducted a systematic review on the reliability of caregivers in assessing the activity of daily living (ADL) and the QOL of stroke patients and found that caregivers overestimate their patient's status. In addition, the caregiver's reliability in measuring the ADL scale is substantial to excellent, and that in measuring the QOL scale is moderate to substantial.

At 3 months post-stroke, many family caregivers reported a high burden that is closely related to their perceived level of difficulty (Lui et al., 2011). Hence, the caregivers give a lower rate for the QOL of stroke patients compared with that from the patients themselves. This assessment is motivated by the functional status of the caregiver. Although the QOL perceived by the caregiver was lower than that perceived by the patient, the difference is minimal. Statistical results showed no significant difference in

the QOL perceived by patients and caregivers. Therefore, nurses can assess the QOL of incapable stroke patients by using the information provided by caregivers to get accurate results.

Conclusion

In this study, the majority of post-stroke patients were males, in the middle adulthood stage, had secondary education, and do not experience depression. The majority of caregivers were females, in the middle adulthood age, had secondary education, and do not experience depression. Analysis revealed no significant difference in QOL perception between patients and caregivers.

For health service provision, caregivers must be involved in the assessment of the QOL of post-stroke patients. For the development of nursing science, materials about the role of caregivers in providing nursing care to stroke patients must be incorporated in the nursing curriculum. Further studies must be conducted on the patient's QOL from the perspective of the patient's real abilities.

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SONGS OF A CAGED BIRD: A GLIMPSE INTO THE BEING OF YOUTH INSIDE THE PRISON SYSTEM

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Abstract

Understanding young inmates' experiences are essential since their lives have been shaped by the impact of social exclusion. This study aimed to explore the meaning of the lived experiences of young adults inside the prison system. The phenomenological inquiry was utilized, which is grounded in Martin Heidegger's philosophy. Semi-structured interviews were conducted with 18 to 29-year-old inmates incarcerated for at least one year. Through interpretative phenomenological analysis, four themes emerged: An Unfamiliar Melody (with two subthemes: Humming with Frustrations and Tunes of Solitude); The Eyes Outside the Cage; Turning Over a New Feather; and If My Wings Unclipped. The "songs" of the caged bird tell about the "meanings" of restricted freedom--from being able to dip its wings in the orange sun rays down to being tied in chains. Being held inside a prison limits a person from experiencing life as they should. Opportunities to soar high were taken away. The consequences caused them the fragility of emotions: frustration, loneliness, and humiliation; yet, they still have a speck of hope.

Keywords: frustration, phenomenology, prison system, young adult prisoners

Abstrak

Nyanyian Burung dalam Sangkar: Sebuah Pandangan terhadap Kehidupan Remaja dalam Sistem Penjara. *Memahami pengalaman narapidana berusia muda sangat penting karena kehidupan mereka yang terdampak oleh pengucilan sosial. Tujuan penelitian ini untuk mengeksplorasi makna dari pengalaman hidup orang berusia dewasa muda di dalam sistem penjara. Penelitian menggunakan pendekatan fenomenologis yang didasarkan pada filosofi Martin Heidegger. Pengumpulan data menggunakan metode wawancara semi-berstruktur dengan narapidana berusia 18 hingga 29 tahun yang sudah dipenjara setidaknya selama satu tahun. Berdasarkan analisis fenomenologi interpretatif, muncul empat tema, yaitu:* An Unfamiliar Melody *(dengan dua subtema:* Humming with Frustrations dan Tunes of Solitude*);* The Eyes Outside the Cage*;* Turning Over a New Feather*; dan* If My Wings Unclipped*. "Nyanyian" burung dalam sangkar yang menceritakan tentang "makna" kebebasan yang terbatas—mulai dari mencelupkan sayapnya di bawah sinar matahari jingga hingga diikat dengan rantai. Kondisi dipenjara membatasi seseorang untuk menjalankan kehidupan sebagaimana mestinya. Peluang mereka untuk terbang melambung tinggi dirampas. Hal ini menyebabkan emosi mereka rapuh: frustrasi, kesepian, dan penghinaan; tetapi, mereka masih memiliki setitik harapan.*

Kata Kunci: *fenomenologi**,** frustasi, narapidana dewasa muda, sistem penjara*

Introduction

For quite a long time, the prison has been seen as the home of the world's criminals and outcasts (Wacquant, 2001). It is viewed as an establishment for keeping people without wanting to, started in the most remote past (Barnes, 1972). The disciplinary actions given to offenders were embraced by the detainment of convicts for a period dependent on the type of the wrongdoing (Liwanag, 1970). Upon the foundation of the present Philippine Republic, thoughts of restoration began to be supported. In 1949, the Department of Justice issued rules for the treatment of detainees, which pointed, among others, at the recovery of the criminal. In this way, the motivation behind the jail framework was not only to rebuff the wrongdoing but rather to restore or

redress the criminal (Albis et al., 1977).

Currently, prisons hold many youthful detainees for a year or more. More than 50,000 young adults in the Philippines have been captured and kept since 1995. The assessed absolute number of youthful grown-ups aged 18 to 29 in prisons or correctional facilities has been expanding constantly. Prisoners have consistently resisted a one-of-a-kind arrangement of possibilities and weights to which they were required to respond and adjust to survive the prison experience (Wacquant, 2001). The individuals who are imprisoned speak to the most minimized, socially marginalized, socio-financially hindered, and "weak" of society. Their lives have been formed by the effect of social avoidance. Besides, other issues, they are liable to be individuals from an ethnic minority group, have limited education and a background marked by insecurity, unemployment or underemployment, substandard eating routines, and lodging conditions, and sub-par restorative access (Edgar, 2019). Living in this environment implies that they should figure out how to fit in with the tenets of the prison itself, as well as of alternate prisoners that make up their new society (Munn, 2011).

Spending time in prison can negatively affect a youngster's future (Barnert et al., 2017). This study aimed to explore the meaning of the lived experiences of young adults inside the prison system. Understanding the experiences among young adults amid imprisonment is crucial, as most of these detainees will one day be released. To fully understand what it feels like to be circumstantially imprisoned behind bars at a young age, the researcher considered an exploration of the lived experiences through phenomenology. Young inmates who have been incarcerated for no less than one year were chosen to be the informants of the study to provide a great deal of insight into the prison experience. We must supplement the aspects of incarceration in a deeper, richer, and more transcendent nature, thereby enabling the informants' voices to be heard and expressed to the public, with the researcher serving as their mediator.

Methods

The phenomenological approach, grounded in Martin Heidegger's philosophy, was chosen to gain a deeper understanding of the nature of the meaning of the lived experiences of young adults inside the prison system. The data gathering occurred within the premises of a detention and rehabilitation center in the province of Cebu, Philippines. During the data gathering process, the informants were interviewed separately in an isolated room to minimize distraction, maintain confidentiality, and promote security. The researchers interviewed four inmates who were invited and accepted the invitation. To provide the research with a great deal of insight into the prison experience, a purposive selection of the informants was used. The informants were young adult inmates, 18 to 29 years of age, who had been incarcerated for at least one year. In compliance with the utilization of interpretative phenomenological analysis (IPA), the selection of informants was based on non-probability purposive sampling, which targeted a particular group of people, rather than random or representative sampling. Purposive sampling was utilized because it is well suited to the qualitative design chosen, and it involved purposefully selecting individuals with a wide range of variation on the dimensions of interest. This meant that it entailed including offenders with different viewpoints about the phenomenon under study (Polit & Beck, 2021; Chesnay, 2015; Pringle et al., 2011).

To facilitate data collection, we served as the medium for preparing, initiating, guiding, interpreting, and validating the exchange of data among the informants in a 30–60 minute interview. The study utilized semi-structured interviews as a flexible data collection instrument, with the main question "Narrate to us a typical day inside the prison". In this way, the researchers were able to explore more about the experience and maintain a sense of direction and flow while going through and understanding the phenomena. Sufficient time was allocated to collecting data to guarantee the saturation of impor-

tant categories. Field notes were made to ensure credibility and trustworthiness and audit trailing was done to preserve the sensitivity of the topic. A fictitious name was given to each informant to ensure confidentiality of data and maintain their privacy. The study also utilized an audio recorder and word processing software. The audio recordings and transcriptions were stored in a secure box that only the researcher could access. Only the research team and the informant were allowed to view and edit files about their interview. All the raw and unanalyzed data were destroyed two years after the final research paper was approved.

We looked for themes in the first case since IPA has a step-by-step approach to the analysis. The transcript was read several times, and the left-hand margin was used to annotate what was interesting or significant about the informants' speech. Researchers' triangulation was utilized in all steps of the analysis. The researcher and viewer deliberated with each other about their perceptions and interpretations twice immediately after the interview and after reading and rereading the transcription (Pringle et al., 2011).

The transformation of initial notes into themes was continued throughout the whole transcript. As the process continued with all informants, the researcher repeated the procedure, only with a different time and setting. The data from each time corresponding to the informant were then compared, contrasted, and associated to create a final representation of the particular informant. The same process was employed for the remaining interpretations. After the construction of the final representation of each informant, all data were analyzed as a whole. Similar themes emerged as the researcher advanced through each process. At this stage, the entire transcript was treated as data; therefore, no attempt was made to omit or select particular passages for special attention. The number of emerging themes reflects the richness of the particular passage.

Results

The understanding of the experiences of young adults inside the prison system was taken from four informants. Table 1 contains each informant's demographics. Through the analysis utilizing IPA, after a series of reflections and immersion of the experiences of the informants, four themes emerged from the entire research process.

The first theme is *An Unfamiliar Melody*, where the "caged bird" sings with a fearful trill of the things unknown. It talks about how it was when the informants first entered the "cage" or prison cell. They faced a lot of uncertainties about what was ahead of them. From this, two subthemes emerged, namely, *Humming with Frustrations (*which reveals their set of emotions grimed with despair) and *Tunes of Solitude* (which focuses on how imprisonment took away their liberty, and their chance to be with their families). The second theme, *The Eyes Outside the Cage,* refers to society's stigma and judgments that the informants are facing, thus insinuating feelings of embarrassment and a sense of social seclusion. The third theme is *Turning Over a New Feather,* which describes inmates' new image after having been detained and experiencing different challenges inside the cage or prison cell.

Table 1. Informant Demographic

Pseudonym	Sex	Age	Length of Incarceration	Crime Charged
Jennifer	F	23	16 months	Drug Trafficking
Arianne	F	20	21 months	Theft
Giovanni	M	27	39 months	Murder
Blake	M	29	86 months	Rape

It speaks about how the phenomenon changed and molded their character after they felt a wide array of emotions. The fourth and last theme, *If My Wings Unclipped,* hears the serene whispers of hopes on the grave of dreams behind the bars of rage.

Theme 1: "An Unfamiliar Melody." First entering the "cage" or prison can be a daunting flight, especially for young adults. On clipped wings and tied up with chains, the caged bird opens its throat to sing with a frightful trill of the things unknown. This theme talks about their voices describing the unfamiliar path that they were forced to take, a place where their liberty was taken away, and a place unversed to them the "cage" or prison. This theme narrates how imprisonment brought changes in the young prisoners' lives and how they made sense as a prisoner.

Subtheme 1: Humming with Frustrations. When the bird is unable to spread its wings to fly and express the true meaning of life, its feathers inevitably begin to waste away, thus losing its gloss. Whether one realizes it or not, it takes time for a person to get used to an accustomed condition. Imprisonment compels a person to make many changes such as the limitations and boundaries set by the facility. The bird can no longer leap on the back of the wind or dare to claim the sky. Altogether, these frustrating things put the bird in a cage of unwillingness, in jail of suffocation as if the bird is tied up with chains and freedom is taken away. The informants expressed how upset they felt. They were dismayed with the notion of being locked up, and with their frustrations, they compared life in prison to that of a chicken.

Being a little bird trying to flap its broken wings but still ending up flightless bends their emotion, giving them a feeling of frustration. When trapped inside a dark chamber, caught in a grave of broken dreams, the dark clouds seem to cover its sight, leaving behind only a blurry vision. They can hardly see the light, worrying about what is to come. They barely realize what their feathers are made for, incapable of breaking free. This was how Blake tried to express his feelings when inside the prison.

Subtheme 2: Tunes of Solitude. When the inmates spend every single day far from their loved ones, they cannot help but long for every detail from their support system. Even simple gifts from informants' loved ones can make them happy. Informants appreciate even the tiniest efforts from their family just to see and spend time with them. However, Jennifer could not help but cry after every visit. Although things are different for Arianne, whose parents have abandoned her and her child because of her imprisonment, this does not exempt her from thinking about her family.

The informants assuming roles as sons, daughters, husbands, wives, fathers, and mothers of their own families have been affected by their imprisonment. They constantly miss their loved ones especially throughout the time spent away from them. What is usually expected of them by society as providers for their children is no longer met, as it is impossible to earn enough money to support them. They cannot monitor what happens outside or witness the growth of their children. They must leave all their responsibilities to the people they left behind, most likely their partners, brothers, sisters, and parents.

Meanwhile, being incarcerated for a given period, good bonds between co-inmates formed, and moral relationships were established. As Arianne described the head of their cell as motherly, she could not help but look up to her. Blake and Giovanni also treat the other inmates as their brothers.

Theme 2: "The Eyes Outside the Cage." Due to the crimes the incarcerated people have committed, we simply cannot deny that they are often judged and stereotyped. People are prejudiced by the social stigma brought by being imprisoned; they form biases about different individuals, which made the informants confused and embarrassed. One should explore and know

the reasons behind why such an unlawful act was done rather than focusing only on the crime that was committed. This will help one to understand the reason behind their imprisonment.

Jennifer shared her sentiments about how people viewed prisoners. Whether you are in prison or not, we are all people, as she claimed. She hated how people stereotyped them. Giovanni, who committed multiple murders, stated that he is not that brute person. He shared, "This is already my second time. But I am not a bad person". He also admitted that he has killed many of those who were wrongdoers of their place.

The emotions they felt had pushed them to commit a crime. They felt hopeless and thought that an unlawful act was the only way to escape the dilemma. Being consumed by the emotions brought by those dilemmas led them to do such an unlawful act, and the consequences later affected their lives. Most of them regretted what they had done that led to the downfall of their life.

Theme 3: "Turning Over a New Feather." The caged bird, amid trial and difficulties, turned over a glossy feather, a new image after having learned and realized the values of being alone. Jennifer, for example, realized a lot of changes in her life because of her current situation. Giovanni also seems to relate to Jennifer's experience. For him, the institution helped him mold his character. Inmates have become better people than they once were. Looking back to the past, Arianne could not help but compare herself to now. She recognized how unkind she was before. Imprisonment helped her acknowledge her mistakes. Informants could not help but relate their situation with their religious beliefs. It has reconnected their principles and strengthened their relationship with God. Arianne then added how different her life is today compared with her life before incarceration.

Theme 4: "If My Wings Unclipped." As for Jennifer, she has no other plans after her release but to spend time with her family. She wanted to catch up with everyone, especially her children. Blake also positively thinks about his future. No matter how degenerating it feels for him to be in prison, he is still looking forward to his release. Becoming rich when release is also what also Blake aspires to. However, after years of begging God for his release, Blake decided to stop believing that He is real. He became devastated that God did not grant his wish.

Discussion

Being held inside the four corners of the prison can limit a person from experiencing life as they should. It is a place where boundaries are set, limitations are established, and freedom is restricted (Barnert et al, 2017). Like a bird when captured, its opportunities to soar high and spread its wings were taken away. With clipped wings and tied feet, it lives within the confinement of its cage learning only things as far as its eyes could see. Being young adults detracted from their ordinary life and being put inside the jail environment, the stressors that go with it make it hard for them to modify. Stress is neither the physical incitement nor an example of physiological, behavioral, or subjective responses; rather, it is the relationship between an individual and the earth. The idea of examination, which expresses those passionate reactions (for example, stress) relies on the genuine desires that the individual will show regarding the importance and the result of a particular experience (Davies, 2017; Krohne, 2002).

The principal sort of evaluation is the essential examination; alludes to when an individual chooses if the danger is critical, a positive experience, a risk, hurt, or a test. This choice can result in feelings, for example, outrage, alarm, nervousness, blame, disgrace, misery, jealousy, envy, and sicken or joy, pride, help, and love. The informants communicated dread, tension, blame, and misery as they experienced the new world inside the jail. These feelings were realized by turning into a remote being in a situation new to them. It is unavoidable for them to stress about their lives, as they face life inside the jail with vulnerabilities. Vulnerabilities incorporate

what might transpire when they live inside the jail, what might happen to their families outside, how they can adapt to being secured in a building they are not acquainted with, and how they can deal with all the difficulties they will confront. Maxwell et al. (2013) also recommended considering the social and emotional wellbeing of the prisoner that became vulnerable.

One of the most treasured values kept by Filipinos involves maintaining a close tie within the family. Good communication, effective decision-making, and the required support given to each other strengthen this bond. Being locked up inside the prison, it is arduous not to miss their loved ones. The family dependably holds an imperative part of the riddle. Without it, the world is inadequate, and individuals cannot simply pound the pieces together to fit that is how precious family is. Every day spent living alone and away from their families never fails to make the informants doleful; they feel the distance between them and their families. Family is the fundamental unit of society that ought to make and manage a situation, which advances passionate and physical wellbeing and mental prosperity for its members. The family unit is also a dynamic social support system where readiness to accept reintegrating inmates back into societal and home life (Bertulfo et al., 2016). To fulfill this function, families should know how to foster, provide, inspire, safeguard, instill, create boundaries, and structure, and work together as a one. Filipinos mostly treasure the value of family in all aspects of life. According to Dr. Murray Bowen's theory on the family process, the family is the basic emotional unit in society, which is composed of interconnected beings that affect their functioning as a family (The Western Pennsylvania Family Center [WPFC], 2014). An individual is never isolated within a family where interconnected roles maintain the process. Normally, a family develops certain patterns influenced by the behaviors and roles of each member. When one function is dysfunctional, it may maintain the stability of the patterns established or may disturb the normal process of equilibrium within the system.

Reasons for committing a crime include greed, anger, jealousy, and pride. The desire for control, revenge, or power will result in violent crimes, such as murders, assaults, and rapes. Violent crimes usually occur on an impulse when an emotion increases (Law Library-American Law and Legal Information, 2014). One could also be possessed by anger and harm someone without realizing it.

Solitude, on the other hand, may set people free, and that is the beauty of it. It allows people to shut themselves out from the world and focus on themselves, yes, themselves alone. Most of the population might consider prisons just buildings where criminals are imprisoned and denied of their liberty while serving a sentence for wrongdoing. While this is genuine, the idea of imprisonment is additionally planned to rehabilitate detainees. It is depression that attracts one to be closer to God. It takes a person who is sentenced to wrongdoing and has them sit inside the jail cell to get consideration. Numerous detainees read the book of scriptures since they must be permitted to peruse books and sit in front of the television during their imprisonment. Being inside the prison is monotonous, so detainees read the Bible and other profound books to give them solace.

A qualitative study by Kozlov (2008) uncovered prisoners' expectations and goals for their future. Indeed, even those accused of life sentences discuss plans after discharge from jail. Keeping trusts and dreams, later on, keeps them grounded. A lot of feelings that a detainee may have and issues that should be fathomed. A prisoner has their unique path to survive and continue to solidly proceed with what they had in the past. Despite everything, they have the tirelessness and determination to satisfy their fantasies in life (Kozlov, 2008). The troubles inside the jail did not upset them to free trust that they will be free some time or another and have a superior life (Jones, 2016).

Conclusion

In light of the results of this study, it is never enough to see the superficial aspect of a phenomenon. The songs of the caged bird, or the meaning the young adult prisoners hold, speak more about it in terms of understanding the world to which it belongs. Being held inside the four corners of the prison or "cage" limits them from experiencing life as they should. It is a place where boundaries are set, limitations are established, and freedom is restricted from dipping their wings in the orange sun rays down to having their wings clipped and tied in chains. It is a grueling undertaking for them to embrace changes, and the consequences they faced caused them the fragility of emotions. They had simultaneous feelings of frustration, loneliness, a speck of hope yet still entrapped with people's judgments and stigma. Based on what unfolded, the researchers recommend that sharing about inmates' experiences inside and outside the facility would be a great step towards change and acceptance. It would be an avenue for them to express their feelings and be better understood by the people not just in prison but also in society.

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AUTHOR INDEX

All article authors published in Jurnal Keperawatan Indonesia Volume 24 of 2021 are listed below alphabetically, complete with numbers and pages.

SUBJECT INDEX

JURNAL KEPERAWATAN INDONESIA
SUBMISSION GUIDE

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SUBMISSION GUIDE

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AUTHOR GUIDELINES: ORIGINAL RESEARCH

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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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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.

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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.

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

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

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Becker, E. (2001, August 27). Prairie farmers reap conservation's rewards. *The New York Times*, pp. 12–90. Retrieved from http://www.nytimes.com

Appendices

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

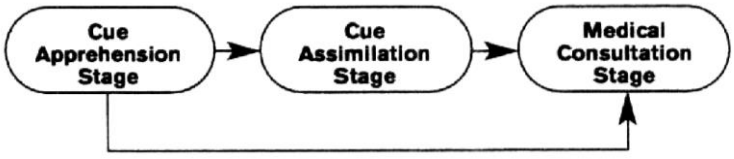
Table 1. The Characteristics of the Respondents (capital letters at the beginning of the word 11 pt, left justify)

(One blank single space line, 10 pt)

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

*table footnotes (if necessary)

Here is an example of an image



(One blank single space line, 10 pt)

Figure 1. The Process of Cardiac Sensitivity Cues (Capital Letters in the Beginning of the Words, 11pt)

AUTHOR GUIDELINES: CASE REPORT

ARTICLE TITLE (all caps, 14-point font, boldface, centered, Maximum 16 words)

(One blank single space line, 14 pt)

Abstract (10-pt, bold, italics)

(One blank single space line, 10 pt)

Article Title. Abstract should be written using Times New Roman font, size 10pt, not-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 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.

(One blank single space line, 10 pt)

Keywords: This section consists 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, alphabetical order (10-point font), and gives commas between words/phrases.

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

Abstrak *(10 pt, bold, senter)*

(One blank single space line, 10 pt)

Judul Artikel. 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 klinisnya. Apakah laporan kasus asli yang menarik bagi area spesialis keperawatan tertentu atau apakah itu berdampak klinis yang lebih luas?

(One blank single space line, 10 pt)

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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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 12pt, 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 around 3500–4500 words (exclude references). If it far exceeds the prescribed length, it is recommended to break it into two separate manuscripts. Standard English grammar must be observed. The title of the article should be brief and informative and it should not exceed 16 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 16 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".

AUTHOR GUIDELINES: 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.

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/

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)

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

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.

Numbering tables are using Arabic numerals. The distance between table and the paragraph is a single space. 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. The table is placed in the highest or the very bottom of each page and do not flanked by sentence. Avoid interrupted the table by page.

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.

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.

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.

Acknowledgements

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)

Use the most updated references in the last 10 years. Reference is written with Times New Roman font size 11 pt, single space, the distance between the references one enter. The references use the hanging, which is on the second line indented as much as 0.25", right justified. The references only contain articles that have been published, and selected the most relevant to the manuscript. It prefers primary references. The references format follows the "name-years" citation style (APA style 7th edition). All sources in the reference must be referenced in the manuscript and what was in the manuscript should be in this reference. The author should write the family/last name of sources author and year of publication in parentheses use, for example (Potter & Perry, 2006) or Potter and Perry (2006). Write the first author's name and "et al.", if there are three or more authors.

Examples:

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 two or more authors (up to 20 authors) write all author's names. If an article has 21 authors or more, list the first 19 authors, then insert an ellipsis (…) and then the last name and first initials of the last author. Example:

Wolchik, S.A., West, S.G., Sandler, I.N., Tein, J., Coatsworth, D., Lengua, L., Johnson, A., Ito, H., Ramirez, J., Jones, H., Anderson, P., Winkle, S., Short, A., Bergen, W., Wentworth, J., Ramos, P., Woo, L., Martin, B., Josephs, M., … Brown, Z. (2005). *Study of the brain. Psychology Journal, 32* (1), 1–15. doi: 10.1037/1061-4087.45.1.11.

Conference Proceeding

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

Newspaper (no author's name)

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

It's subpoena time. (2007, June 8). New York Times. https://www.nytimes.com/2007/06/08/opinion/08fri1.html

Book

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

Peterson, S.J., & Bredow, T.S. (2004). *Middle range theories: Application to nursing research*. 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*. 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). Guilford Press.

Translated book

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

Thesis/Dissertation

If available in the database

Rockey, R. (2008). An observational study of pre-service teachers' classroom management strategies (Publication No. 3303545) [Doctoral dissertation, Indiana University of Pennsylvania]. ProQuest Dissertations and Theses Global.

Gerena, C. (2015). Positive thinking in dance: The benefits of positive self-talk practice in conjunction with somatic exercises for collegiate dancers [Master's thesis, University of California Irvine]. University of California, Scholarship. https://escholarship.org/uc/item/1t39b6g3

If not published

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.xxxxxxxx [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. Retrieved from http://www.eric.com/jdlsiejls/ supervisor/early937d

Database article with 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

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(One blank single space line, 10 pt)

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

*table footnotes (if necessary)

Here is an example of an image

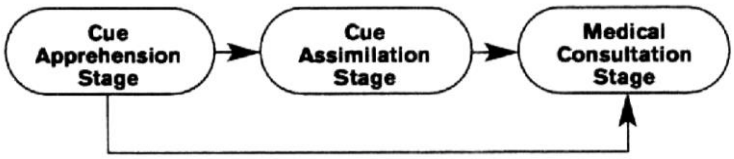

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Figure 1. The Process of Cardiac Sensitivity Cues (Capital Letters in the Beginning of the Words, 11pt)

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