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EDITORIAL

RESEARCH ARTICLES

RESEARCH NOTES

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SAN BEDA UNIVERSITY

VISION-MISSION STATEMENT

San Beda University, a Catholic educational institution, is committed to the Christian formation of the Bedan Community as its service to the Church, the Philippine society, and the world.

VISION

San Beda University envisions a Community that is:

Fully Human
Wholly Christian
Truly Filipino
Globally Competitive

MISSION

San Beda University aims to form its members in:

Faith (Fides)
Knowledge (Scientia)
Virtue (Virtus)

and inculcate in them the Benedictine core values of prayer and work (ora et labora) that include:

Study
Community
Pursuit of Peace

EDITORIAL

Wabi – Sabi and the Nature of Knowledge

Wabi – sabi, the Japanese aesthetic principle of beauty reflects our understanding of the nature of knowledge: that they are impermanent, imperfect, and incomplete (Koren, 2008). The truthfulness of things cannot be ascertained with absolute finality.

What we hold as facts today may not be considered as facts before. The discipline of nursing, for instance, was historically created to assist the physician in the performance of their duty. The focus of the discipline of nursing then was the physician and not the patient. Today nursing emphasize its disciplinary focus as the study of caring in the human-health experience (Newman, Sime, & Corcoran-Perry, 1999), a drastic shift towards being a person-centered profession. Knowledge is invariably impermanent.

What was considered as the "golden-standard" of care then may be verified to be not so golden after all. Bed bathing patients with soap and water was then considered as one primary method of minimizing infection until it was demonstrated that it actually increases the microbacteria instead of minimizing it (Johnson, Lineweaver, & Maze, 2009). Knowledge is constantly imperfect.

The truthfulness of the knowledge that we have today is transitional, it can only be considered temporarily complete until such time that it will be proven otherwise. There was a time when we only believed in the existence of one form of intelligence until studies show that there is more than one form of intelligence. Knowledge will consistently remain incomplete.

The reality of the things that we know at the moment is always arbitrary. What we considered as evidence today may become useless by tomorrow. Timeliness of the dissemination of knowledge should be given emphasis, publications as one of the avenues for this dissemination should then be given importance. The process on how we arrive at knowledge and the knowledge that was produced, however rudimentary, needs to be disseminated. As scholars, we are ethically and morally bound to make public the seemingly trivial and private scientific endeavor of our professional discipline. Discovered knowledge that is kept secret, however brilliant it may be, will remain practically useless.

Dissemination should place emphasis on the process and merit on how knowledge was produce instead of wasting energy proving that what we came to know is faultless and unflawed. There must be a continued effort to rediscover things and make this process of

discovery known to the public. The goal of knowledge creation and dissemination should not be the production of absolute truths but expositions of figments of realities which ultimately aim to uplift human condition.

The principle of Wabi – Sabi reminds us that things, including beauty and knowledge, are transitory and imperfect. It also reminds us to always assume a position of humility and openness and not of superiority and arrogance. This lens allows us to appreciate things with a sense of awe and wonder and through these develop our love for the process of knowing, knowledge creation, and knowledge dissemination.

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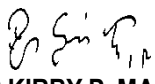

RUDOLF CYMORR KIRBY P. MARTINEZ, PhD, MA, RN
Editor-in-Chief

RESEARCH ARTICLE

Development of a List of Affective Competencies and Behavioral Indicators for Physical and Occupational Therapy

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Abstract

Background: Affective competencies, as demonstrated by behaviors acted upon by people, are essential components in providing optimal care and receiving trust from patients and clients of physical (PTs) and occupational therapists (OTs). These, along with knowledge and skills, have to be developed early on in the educational system. If these are generated, PT and OT schools will be guided on how to inculcate them in their respective outcomes-based education designs, from planning to assessment. Assessment of the manifestation of these affective competencies is a challenge to educators; thus, the need for behavioral indicators for each. This study developed a list of the necessary affective competencies and their behavioral indicators for PT and OT.

Methodology: A sample of experts from different fields of practice in the PT and OT population groups underwent three rounds of generation and refinement to create a list of affective competencies and their consequent behavioral indicators. To come up with the final list, testing for group consistency was done using Cronbach's alpha and mean ranks.

Results: Forty-two PT and twenty-five OT experts generated the final list of affective competencies and their behavioral indicators. For the PTs, those competencies are accountability, adaptability/flexibility, altruism, compassion, creativity, diligence, effective communication, ethical reasoning, excellence, honesty,

initiative, passion, patience, perseverance, professionalism, reliability, responsibility, self-reflection, and time management. For the OTs, these are altruism, compassion, conscientiousness, creativity, inquisitiveness, professionalism, and responsibility.

Conclusion: The list of affective competencies and behavioral indicators generated by experts in this study were mostly reflective of the existing code of ethics of the professions, with some not stated explicitly but were reflected as such in the behavioral indicators of the other competencies.

Key Words: *Affective Competencies, Attitudes and Values, Occupational Therapy, Physical Therapy*

Introduction

Physical and occupational therapists (PTs & OTs) are health professionals whose main goal is to ensure that their patients and clients perform their daily activities to their maximum potential, despite having physical, mental and social limitations, if they have any. To be able to accomplish that, PTs and OTs undergo training geared towards providing them with expertise in different aspects of health and function in the cognitive, psychomotor, and affective domains of learning.

The information that professionals should know in their field, or knowledge, and activities involving manipulation of things, movement, or language, or psychomotor skills, are two domains of learning usually developed during lecture classes for knowledge and laboratory classes for skills. There is, however, a third, equally important domain that is usually connected with the two other domains in terms of how they are developed: the affective domain, composed of developing an individual's attitudes and values.

Attitudes are a person's reaction towards a specific object, which can be a person, a thing, or a situation, and it can either be positive or negative (Sana, 2010). This specific reaction is said to be drive-producing, thereby resulting in overt behaviors being shown by the person (Shaw & Wright, 1967). Attitudes are learned through experiences and social relations, and the reactions vary from person to person and object to object (Sana, 2010). Over time, with consistency in the reactions of a person towards that object, the person develops a set of values reflective of those reactions. Values are the most stable form of a person's consistent attitude towards an object (Sana, 2010). They are positive signs of satisfaction and contentment on a specific object of interest, thus becoming the guiding principles of how a person lives his life (Andres, 1980).

The professional organizations of PTs and OTs in the country, the Philippine Physical Therapy Association (PPTA) and Philippine Academy of Occupational Therapists, Inc., (PAOT) have documents describing the behaviors expected of PT and OT professionals, such as the Code of Ethics and the Standards of Practice. To be able to develop professionals who are at par with these

organizations' standards, students must be trained in schools to develop these attributes and behaviors, and for them to internalize enough the attitudes and values underlying these behaviors that will be embedded in them throughout their professional life.

The Commission on Higher Education (CHED), the regulating body of tertiary education in the Philippines, has been developing physical therapy (PT) and occupational therapy (OT) standards for the past years, to ensure production of quality education and graduates. Recently, in its effort to be at par with global standards and remain competitive with other countries, CHED has released the CHED Memorandum Order (CMO) No. 46 series of 2012, mandating the shift to Competency-Based / Outcomes-Based Education (OBE). CHED defined OBE as an approach that aims to produce graduates who are equipped with the knowledge, skills, attitudes, values and ethical conduct, or competencies, necessary for their field of practice or profession (Cuyegkeng et al., 2013). The general program outcomes in PT and OT education, as well as the professional roles and competencies based on these outcomes, have already been identified by the CHED technical panels for PT and OT curricula, in consideration of all types of schools in the Philippines.

According to it, general graduates of baccalaureate degree program should demonstrate the following learning outcomes (CMO 52 & 55, 2017): engage in lifelong learning and understanding of the need to keep abreast of the developments in the specific field of practice (Philippines Qualifications Framework, PQF, level 6 descriptor); effectively communicate orally and in writing using both English and Filipino; work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor); act in recognition of professional, social, and ethical responsibility; and, preserve and promote "Filipino historical and cultural heritage" (based on Republic Act 7722).

The outcomes above indicate that out of five, the last three outcomes explicitly belong to the affective domain of learning while the first two are understood to imply the integration of attitudes. There are no concrete and measurable constructs yet under each of these outcomes.

In the same CHED CMOs for PT and OT education, roles expected of PTs and OTs upon graduation were established. Among those involve the following, with the roles showing emphasis on the affective domain of learning: health professional and ethical practice, inter-professional education, lifelong learning (personal / continuing professional development), leader / manager/systems approach to health care, and social advocate/community mobilizer.

The said CMOs also stipulate specific program outcomes for BSPT and BSOT, as well as the specific performance indicators expected of graduates of the program. These are composed of outcomes showing the ability of the graduates to perform their professional, interpersonal, social, innovative, and active learning roles and responsibilities. While there are sample curriculum map and instructional design attached in the CMOs, the attitudinal and behavioral indicators in the affective domain remain at the general level.

This study aims to determine a list of affective competencies and their behavioral indicators necessary for PT and OT graduates to demonstrate, so curriculum planners, policymakers, instructional designers, and educators may plan the development of these throughout the course of the program and facilitate teaching and assessment of these in PT/OT education, whether in the undergraduate or post-graduate level. They are also usually faced with the challenge of stating actual behavioral indicators in the affective domain of learning, making this domain often overlooked in the establishment of outcomes. This study also aims to provide appropriate behavioral indicators for each affective competency.

Method

Research Design

This study utilized developmental research design, or, as defined by Richey (1994), is the "systematic study of designing, developing and evaluating instructional programs, processes and products that must meet the criteria of internal consistency and effectiveness." The study produced a list of competencies and their indicators that was tested for consistency via expert agreement. The study was divided into three rounds, and the end-result was a list made and refined by the experts and the researcher.

Population of the Study and Sampling Procedure

Purposive sampling was utilized to gather samples for all rounds of the study. A team of experts in the different fields of practice of PT and OT was invited; these fields being: the academe, outpatient clinics, tertiary hospitals, community-based rehabilitation, home health care, and wellness/sports / fitness centers for the PT. Only one PT or OT was invited per institution to avoid having their institutional values and beliefs influence greatly the outcomes of the study.

The inclusion criteria used for the study was as follows:

- They should be primarily practicing in a field they are in for a minimum of five years.
- They should be members of their professional organizations (Philippine Physical Therapy Association [PPTA] and the Philippine Academy of Occupational Therapists [PAOT]).
- They should be working in the Philippines.

Out of all the PTs and OTs who fit the criteria in each institution, the person chosen to be a respondent is the one who either has the highest rank in the institution, is recognized to really be an "expert" in the field by her peers, or has pertinent work in the field as recognized by the institution or the professional body.

Data Gathering Process and Analysis

The data collection procedure was composed of three rounds of generation and refinement of the list. The panel of experts chosen were given letters of consent with full information about the details of the research study, including its scope, process, risks and benefits, and their rights as participants, such as right to confidentiality and protection of their data, and right to voluntarily exit the study anytime. Upon agreement to participate, PT and OT experts were given an open-ended questionnaire either by personal email or by delivering it to them by hand. The questionnaire is a table composed of two columns, one for the affective competencies, and one for the behavioral indicators. They were instructed to write the affective competencies they deemed necessary for PT or OT graduates to have, and the equivalent behavioral indicators of the competencies. A short explanation of the affective domain of learning was given to the experts. The PT and OT experts came up with the list of affective competencies and behavioral indicators by means of three rounds.

Table 1. Methodology of this research study

Study Round	Procedure / Method	Analysis	Output
Generation round	Experts were asked to answer an open-ended questionnaire to generate a list of affective competencies and their corresponding behavioral indicators.	The researcher summarized the list without subjecting the raw data to an analysis. Refining in this round involved combining of similar competencies and indicators, eliminating competencies and indicators that do not match the objectives of the study, and clarifying vague and confusing competencies and indicators.	Extensive list of affective competencies and their behavioral indicators to be used as questionnaire for the next round
Checklist round	Experts were asked to narrow and refine the list to the most essential and relevant. The resulting list of round one was shown to the experts, and they were asked to check the affective competencies they deem to be necessary in PT and OT graduates, as well as the behavioral indicators that are reflective of each affective competency.	Analysis was done after the first round by means of frequency distribution. Those competencies and indicators that received less than 25% of the total number of checks from the respondents were eliminated from the list.	A more refined list than the previous round, to be used as questionnaire for the next round
Ranking round	The experts were asked to rank each item within the total amount of items based on their perceived degree of level of importance.	For the third round, the rankings given by the respondents for those left after the second round were analyzed per profession, and separately for all the affective competencies and the behavioral indicators per competency. The	Final list of affective competencies and behavioral indicators

Study Round	Procedure / Method	Analysis	Output
		items under each set of variables (i.e.: affective competencies and behavioral indicators) were analyzed for ranking consistency as a group by means of the Cronbach's Alpha. Removal of individual competencies were done repeatedly until the group consistency amounted to a 0.8 alpha level for the affective competencies, and 0.7 for the behavioral indicators, which are the acceptable levels of consistency set for this study by the researcher, as supported by literature (Tavakol and Dennick, 2011). Following repeated consistency testing, those which yielded an acceptable consistency rating (Cronbach's alpha) for the group were included for the final analysis. The last part of this round of analysis involved averaging the ranks of each of the competencies. Those with rankings higher than 50% of the total number of ranks were included in the list, and those that did not were excluded. This was set by the researcher to ensure that majority of the experts were in consensus that the item is considered important and was therefore given a relatively higher rating than others.	

Results

Profile of Respondents

During round one of the study, 42 experts participated from the PT profession, and 25 from the OT. In the PT profession, the nine experts from the academe came from different institutions such as private and state universities, review centers, and universities of some tertiary hospitals. From the community-based rehabilitation field, the two experts have both worked on different CBR locations in the Philippines including Luzon and Visayas. The seven from the outpatient clinics field came from clinics specializing in pediatric and adult population, with different locations such as in the malls, in prominent offices, and as private clinics in the metro. Majority of the seven PTs from the home care

field are freelance PTs, getting their home care patients from referrals or connections from when they were working in hospitals before, and only one of the seven was part of a home care agency. The eleven experts from the tertiary hospital setting came from a mixture of private and government hospitals, with two of those hospitals being specialization hospitals. Of the six experts from the wellness field, one is from a professional sports team, two are from fitness centers, one is from a clinic specializing in sports cases, and two are from college sports centers.

On the other hand, in the OT profession, the five academicians came from a mixture of private and public educational institutions. The thirteen clinicians all have a variety of outpatient clinics they work at, usually one to two days at each place per week. The two experts from the home care setting also have outpatient clinical work but has most of their days in their week working as home care OTs. The five tertiary hospitals where the OT experts came from where also a mix of private and government types.

For the succeeding rounds, the number of experts who responded decreased despite the multiple follow-ups of the researcher, but it was still ensured that there were representative experts from each type of institution (e.g.: private and public, etc.).

The table below summarizes the composition of experts who were included in the study:

Table 2. Composition and number of experts who were part of the Delphi Technique

Field of practice	Profession	Round 1: Generation Round	Round 2: Checklist Round	Round 3: Ranking Round
Academe	PT	9	5	5
	OT	5	5	5
CBR	PT	2	1	1
	OT	0	0	0
Clinic	PT	7	5	5
	OT	13	5	5
Homecare	PT	7	5	5
	OT	2	2	2
Hospital	PT	11	5	5
	OT	5	5	5
Wellness Centers	PT	6	5	5
Totals	**PT**	45	26	26
	OT	25	17	17

Generation Round

At the end of round one, there was a total of 81 affective competencies for the PT profession and 34 for the OT profession, with similar terms counted as one. For the behavioral indicators, there

are 210 for the PT profession and 108 for the OT profession.

Initial refining was done by the researcher to the list generated from round one. Synonymous competencies were combined and a more encompassing competency was retained for those combined. For the PT profession, examples of this are collaboration and teamwork, taking ownership and accountability, both knowledgeable and skillful and excellence, respect and courtesy for others, observant and attentive, resourceful and creative, discriminative of professional behaviors and professionalism, and open communication and honesty. For the OT profession, an example of this is team orientation and teamwork. Vague terms used as competency were either removed from the list, such as embraceable, practicing highest ethical standards, and cultivation of learning habits for the PT profession, or replaced with more concise and definitive terms that are already existing in the list, such as being cool, calm and collected when multitasking for composure, and responsibility to improve one's self for excellence, also in the PT profession. Some competencies for the PT profession were combined based on what their behavioral indicators seem to be describing, such as maintaining cleanliness of their classroom or work area, which was under the competency aesthetic sensitivity, which was then combined with professionalism. As for the behavioral indicators of the PT profession, those that were not appropriate with what was asked by the questionnaire given were removed, such as those pertaining to classroom activities like gaining trust of teachers and using enough time during laboratory sessions to practice. Behavioral indicators that seem repetitive by being written under two or more different competencies were removed, with only the indicator paired with the most appropriate affective competency retained. An example of this for the OT profession is dressing professionally, which was indicated under both the confidence and professionalism competencies, and for the PT profession, communicates effectively with his colleagues both inside and outside the clinics, which was indicated both for effective communication and good interprofessional relationship, obeying ethical practices in the field one is assigned to, which was indicated under both ethical reasoning and professionalism, and owning up to one's actions and mistakes, which was indicated both under trust and accountability. Behavioral indicators that are not clear enough or do not clearly reflect affective competencies, such as promoting certain causes for the advocative competency, and performing PT exercises the proper way for the discipline competency.

At the end of round one, the number of affective competencies for the PT profession decreased from 81 to 43, and from 34 to 27 for the OT profession. For the behavioral indicators, the numbers decreased from 210 to 141 for the PT profession, and from 108 to 102 for the OT profession.

For the second round, those which received less than 75% of checks were removed from the list. This further decreased the count of affective competencies from 43 to 42 for the PT profession, and 27 to 20 for the OT profession. Among those that were removed were motivational for the PT profession, and balance, collaboration, ethical code, realistic, resilience, socialization, and teamwork for the OT profession. For the behavioral indicators, the PT profession's count decreased from 141 to 130, and 102 to 72 for the OT profession. Removal of an affective competency merited

removal of all its behavioral indicators.

Essential Affective Competencies and Behavioral Indicators in PT Education

Table 3 presents the final list of essential and appropriate affective competencies as well as behavioral indicators expected of PT graduates. These competencies included those that yielded a group Cronbach alpha of 0.8026. Those competencies whose presence in the list decreased the value of the alpha were eliminated. Corresponding to each of the competencies are the generated behavioral indicators with Cronbach alpha of ≥ 0.70. For the rankings, an acceptable level of 50% was set for both the affective competencies and the behavioral indicators. On the side of the average ranking per behavioral indicator, in parentheses, are the acceptable rankings per group of indicators under each competency. Some rankings have been adjusted due to a smaller number of behavioral indicators for that competency. For sole behavioral indicators per affective competency, there was no ranking done. That indicator will be automatically part of the list.

Table 3. Final list of essential and appropriate affective competencies and behavioral indicators for graduates of the PT profession

Affective Competencies	Average Ranking (50%=18)	Behavioral Indicators	Average Ranking (50% value indicated per competency)
Accountability	12.46	Accepts consequences of actions undertaken without getting back at the persons involved	1.69 (2.15)
		Provides corrections, revisions, updates to the client's plan of care based on their (new) goals, current level of function and/or presence of new complaints	2.15 (2.15)
Adaptability / flexibility	13.88	Continues to work well with the team, when a suggestion or point is vetoed in a meeting/conference	2.04 (2.05)
		Able to adjust and do correct procedure/s in critical situations, time pressure, increase of workload, simultaneous clients	1.77 (20.05)
Altruism	12.5	Unselfishly shows his feelings, behavior, and devotion to the welfare of clients, making them and their needs a priority above anything else	No ranking needed
Compassion	11.42	When neglect is suspected, reminds the caregivers of their role in the rehabilitation of the client/patient, and following up with the appropriate medical and legal authorities, as appropriate	5.92 (6)
		Tempers own emotions and puts the client's sanctity first above all, despite how difficult or uncooperative the patient or co-professional may be	5.81 (6)
		Listens to clients' concerns with regards to his condition	4.81 (6)

Affective Competencies	Average Ranking (50%=18)	Behavioral Indicators	Average Ranking (50% value indicated per competency)
		Acknowledge clients'/ colleagues' feelings and concern and provide an environment where the client/colleague can comfortably and freely express what they want you to know	5.46 (6)
		Learns more about the client's social, occupational, emotional, environmental, educational background / capabilities / behaviors / preference through client and family rapport / formal and informal interviews	4.5 (6)
Creativity	16.5	Comes up with novel ideas on how to better deal with administrative tasks or when assigned a project	2.19 (2.5)
		Uses techniques and strategies that are not typical, indigenous and acceptable to local practice	2.5 (2.5)
Diligence	15.88	Submits completed reports and documentations on time	No ranking needed
		Treatment plan includes well-thought of strategies appropriate to address the problems of their client	No ranking needed
Effective Communication	17.88	Verbal or non-verbal practice of taking consideration of individual difference, learning, cognition, belief, political	No ranking needed
		Explains treatments and procedures in a way the clients, family and caregivers can understand	No ranking needed
Ethical Reasoning	18.73	Analyzes and decides on the ethical implications of a given situation	No ranking needed
Excellence	5.38	Engaging in evidence-based practice, especially in communicating the results of the information gathered to the caregivers	2.77 (3.5)
		Regularly updating knowledge and skills base by attending continuing professional education seminars/workshops	3.19 (3.5)
		Admits own limitations by seeking answers to questions that one doesn't know the answer to – reading literature, doing evidence-based practice, seeking expert opinion, and continuing education	3.5 (3.5)
		Looks at how one can contribute to betterment of the profession – whether in research, policy development	3.5 (3.5)
Honesty	18.58	Reports facts about client's status and does not falsify documents	1.46 (2)
		Is truthful; does not give false hope to clients	2 (2)
Initiative	13.15	Doing things as necessary even when no one is looking	No ranking needed

Affective Competencies	Average Ranking (50%=18)	Behavioral Indicators	Average Ranking (50% value indicated per competency)
		Consistently adheres to ethical and moral standards set by the school/facility and to the principles of professionalism	1.96 (2.5)
		Practices honesty and accountability at all times	2.23 (2.5)
Passion	18.04	Shows love for profession	No ranking needed
Patience	18.23	Remains calm and does not become annoyed especially on handling irritated clients, difficult patients, and pediatric cases	No ranking needed
Perseverance	16.73	Does not easily give up with difficult tasks	No ranking needed
		Shows resilience with stress and copes with pressure	No ranking needed
Professionalism	7.35	Always on time during classes, clinic hours and treatment schedules	10.58 (11)
		Submits requirements on time, including cohesive and on time submissions of patient charting	9.19 (11)
		Engages in discussions/conversations in a tactful manner with peers, teachers, doctors/other members of the rehabilitation team	8.04 (11)
		Uphold the patient's best interests	4.12 (11)
		Uphold the ethical considerations and put them into practice	2.54 (11)
		Acts professional in front of the patient	9.54 (11)
		Talks to patients in friendly but professional manner	10.27 (11)
		Ensures accurate reporting of information, without ulterior motives of making one look better for professional gain and competitiveness	5.73 (11)
		Does not try to undermine the work or decisions of other professionals towards a patient. Rather, would work hand-in-hand with them to deliver better patient care service delivery	8.54 (11)
Reliability	16.27	Comes in time and avoids absences	No ranking needed
		Gives advanced notice when absent or late	No ranking needed
Responsibility	13.73	Reports to work & finishes work on time	2.04 (2.05)
		Initiates and completes work-related activities independently	1.73 (2.05)
Self-reflection	16.81	Modifies tests or strategies based on context (client or environmental)	2.42 (2.45)
		Questions own decisions and seeks answers to own questions	2.08 (2.45)
Time management	18.90	Maximizes the treatment plan of the patient for one-hour session including PT/OT notes and some home instructions	No ranking needed

To arrive at an internal consistency rating that is acceptable; i.e. a Cronbach's alpha rating of 0.8, the following affective competencies were removed from the list: active learning, health consciousness, and respect.

Essential Affective Competencies and Behavioral Indicators in OT Education

For the affective competencies and behavioral indicators for the OT profession, the same process was done for every affective competency and group of behavioral indicators under each affective competency, with the acceptable Cronbach's alpha score set to 0.8003 for the affective competencies and 0.7 for the behavioral indicators. For affective competencies with only one behavioral indicator, the behavioral indicator is automatically part of the final list. Following the same process, the italicized behavioral indicators were left in the list. Those who were ranked will be included if their mean score is lower in value than the acceptable ranking, as mentioned per competency.

For the affective competencies and behavioral indicators for the OT profession, the same procedures were done for every affective competency and group of behavioral indicators under each affective competency, with the acceptable Cronbach's alpha score set to 0.8003 for the affective competencies and 0.7 for the behavioral indicators. For affective competencies with only one behavioral indicator, the behavioral indicator is automatically part of the final list, thus, no ranking was necessary. Following the same process, the following behavioral indicators were left on the list. Those who were ranked will be included if their mean score is lower in value than the acceptable ranking, as mentioned per competency. For each behavioral indicator, the acceptable ranking is in parentheses near the average ranking per indicator, with some adjusted in accordance to the total number of behavioral indicators per competency.

Table 4. Final list of essential and appropriate affective competencies and behavioral indicators for graduates of the OT profession

Affective Competencies	Average Ranking (50%=8)	Behavioral Indicators	Average Ranking (50% value indicated per competency)
Altruism	7.06	Entertains inquiries inquiries/concerns (e.g., from parents/caregivers of clients) even after clinic/work hours	No ranking needed
Compassion	7.9	Open to adjustments or meeting half way in terms of demand from patient vs his mood on that day, giving special considerations to the parent preferences in making decisions with the intervention	No ranking needed
Conscientiousness	3.88	Uses appropriate standardized assessment tool (even if laborious) or informal evaluation method (to further investigate or confirm prior findings) depending on what the patient needs	2.35 (2.35)

Affective Competencies	Average Ranking (50%=8)	Behavioral Indicators	Average Ranking (50% value indicated per competency)
		Manages client's time (i.e., session) wisely and properly, making sure that client performs prepatory task/s, purposeful task/s, and occupation-based activity/-ies	2.18 (2.35)
Creativity	8.41	Identifies ways to adapt treatment tools or therapy set up that meets the needs of the patient	No ranking needed
		Incorporates fun treatment activities that holds the patient's interests and encourages them to participate	No ranking needed
Inquisitiveness	8.06	Always studies regarding the best and latest case or management technique	4.06 (5.5)
		Updates himself with the recent trends in practice	4 (5.5)
		Finds time to discuss things/course of intervention with colleagues/co-interns/seniors	5.47 (5.5)
		Studies/researches cases/conditions more in-depth (i.e., reading books, journal articles) as well as intervention strategies	5.47 (5.5)
		Willing to undergo mentorship program, seminars, certifications, trainings, courses	5.24 (5.5)
Professionalism	7.76	Treats patients equally	2.94 (5.76)
		Maintains a healthy staff interpersonal relationship	5.76 (5.76)
		Demonstrates appropriate conduct of self	4 (5.76)
		Communicates tactfully using politically-correct terms	3.83 (5.76)
		Observes rules and policies	5.12 (5.76)
		Demonstrates respect for others' values and practices	4.94 (5.76)
		Collaborates with and considers the suggestions of other professionals	5.71 (5.76)
Responsibility	8.65	Be liable to patients being treated	3.1 (3.5)
		Completes expected tasks correctly and effectively	2.71 (3.5)
		Completes expected tasks even if not directly supervised	3.18 (3.5)

Following the same processes that PT experts underwent, the affective competencies were retained to achieve a Cronbach's alpha of 0.8, after removing the following from the list: time management, cooperation, approachability, and self-reflection.

Discussion

In the final list of affective competencies that were included in the top 6 ranks by the experts, accountability, altruism, compassion, excellence, and integrity were also mentioned by American Physical Therapy Association (APTA, 2012) as part of their vision for professional PTs to demonstrate by 2020. As health care professionals who are deemed as "movement experts," PTs are expected to be very knowledgeable and skillful in their field and at the same time be able to handle their clients well in all aspects. Thus, the top ranks given by the experts are affective competencies which reflect those. In the current CHED CMO for PTs (CMO 55, 2017), competencies such as integrity, professional behavior (or professionalism), ethical reasoning, and effective communication were explicitly mentioned as performance indicators for some of the program outcomes. Edge and Groves (1999) identified seven bioethical principles that should be demonstrated by health care professionals at all times, but out of those seven, only honesty (veracity) can be seen in this list.

Teamwork, love for country, and confidentiality have been mentioned in the previous studies but were not deemed important enough by the experts and therefore did not make it to the final list of competencies, with confidentiality even ranking in the bottom five. PTs in the Philippine setting more commonly deal with clients on a one-on-one basis and rarely have multidisciplinary cases unless they are in the hospital setting (case conferences) or pediatric clinical setting (team teaching or rehabilitation with OTs and speech and language pathologists). Confidentiality is commonly deemed important by many documents in other countries, as well as the code of ethics of PTs and OTs in the Philippines, but was not deemed important enough by the experts. A study by Antonio, Patdu, and Marcelo (2016) supports this by saying that health information privacy in the Philippines is lacking due to the following factors: the lack of a standard health information privacy policy in the country, with those present being either too general or too specific, and the seemingly lacking "privacy culture" of the Philippines, replaced often by the culture of gossip. Technology and innovations such as social media are also contributing factors to this. Autonomy, justice, beneficence, and non-maleficence were some affective competencies that were mentioned in those studies as well as the PPTA Code of Ethics (PPTA, 2000), but were not generated in phase one of this study. Some behavioral indicators for the said competencies, however, can be seen under some of the affective competencies in the list, such as treating prioritizing the patients' / clients' welfare above one's own, which is under altruism. This may go to show that even acknowledged under another competency, the said competencies were still deemed necessary by the experts.

Similar to the PT profession, competencies which allow the OT professionals to excel in knowing and performing necessary professional skills and in dealing with clients were deemed most important by the experts, such as altruism, compassion, and inquisitiveness. The study by Kaasar and Muscari (2000) is in agreement that professionalism is an important affective competency to have for the OT profession. Edge and Groves (1999) and the OT Code of Ethics (OTAP, 1998) have also listed affective competencies that are expected of OT professionals but were not reflected in this list.

Common to those are justice, veracity, autonomy, beneficence, and non-maleficence.

The affective competencies deemed essential for PT and OT graduates to have were comparable to the respective professions' code of ethics requirement for professional PTs and OTs. Compassion, professionalism, honesty, and ethical reasoning are among those competencies that have been explicitly mentioned in the code of ethics (PPTA, 2000; PAOT, 2000). The other competencies can be deduced by comparing their behavioral indicators to the explicitly mentioned behavioral requirements under each competency in the code of ethics, and vice versa. Altruism, excellence, teamwork, and integrity are some of those competencies. This reflects how the behaviors and beliefs of the experts were also shaped by the code of ethics of their respective professions during their practice, thus expecting the same of graduates about to enter the professional world of PT and OT. Being health care professions geared towards caring for the needs of patients and clients, competencies such as those mentioned above are necessary to ensure patient and client care is optimal, and will not render the patients and clients powerless, frustrated, and frightened (Halligan, 2008). The importance of ensuring manifestations of these competencies and behaviors is to gain the trust of patients and clients, which, according to Halligan, is the very core of effective medical care.

The affective competencies and behavioral indicators elicited by the experts for each profession do not deviate much from each other, with professionalism, altruism, and compassion being similarly identified for both professions. Competencies ensuring continuous, active learning, such as inquisitiveness for the OTs and active learning and excellence for the PTs, were also given emphasis by both professions, as well as competencies ensuring practice of high moral standards towards all members of the healthcare team, such as responsibility, integrity, honesty, and patience. Competencies that level up the ability of OTs and PTs to ensure that their techniques match the demands of the client and patient, such as creativity and flexibility, were also deemed important by both sets of experts. The scope of practice of PT and OT practice, both allied medical professions, do not veer too far from each other, both concerned with the assessment and screening, evaluation, intervention, and community reintegration of clients and patients (PPTA, 2000; PAOT, 2000).

Conclusion

The study was able to identify affective competencies that experts deem are necessary for PT and OT practice in the Philippines. Reflecting these competencies are indicators that showcase how PTs and OTs should behave to demonstrate the said competencies. The affective competencies identified by the experts were reflective of the code of ethics of both professions, reflecting both that experts were cognizant of the affective competencies they should be manifesting as professionals, and that the affective competencies necessary to perform rehabilitation of patients and clients for both professions were almost the same. Although there are affective competencies that are not explicitly present in the expert-generated and refined list, the behavioral indicators of the existing

affective competencies were also able to cover some of the lacking competencies. Overlap in the definitions and descriptions of the competencies and what they mean to healthcare professionals may not be standard and therefore it is important to always include behavioral indicators when describing them.

Recommendations

The sample used in the study was limited, with the number per field of practice inequivalent. To further validate the results of this study, consensus of a larger population of PTs and OTs in the Philippines would be recommended, using Delphi technique. Focused studies of the same nature per field of practice in PT and OT can also further enhance the results, giving the readers a clear picture of what affective competencies are necessary per field of practice. A questionnaire made from the results of the study and validated statistically may also be useful for PT professionals in the country, for assessing students and licensed professionals alike.

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RESEARCH ARTICLE

Health Promoting Lifestyle and Perceived Social Support Measure of Nursing Students in a College of Nursing

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Abstract

Background: The importance of health promotion has been underscored in preventing the existing of certain diseases, safeguarding the health of the nation. However, certain factors must be considered in ensuring that all individuals are motivated in maintaining their highest health potential. This study aims to determine if there is a difference between the profile variables of the nursing students, their perceived social support measure and the Health-promoting lifestyles they practice.

Methodology: A descriptive comparative research design was utilized in the study. Health Promoting Lifestyle Profile II (HPLP II) and Personal Resource Questionnaire (PRQ) was used to gather data to one hundred eighteen (118) nursing students. To analyze the gathered data, frequency, percentages, t-test and one-way ANOVA were used in the study.

Results: Results revealed that respondents' nutrition and stress management were significantly different with age group. It was also found that the respondents' physical activity is significantly different with gender.

Conclusion: Nutrition, physical activity, stress management and health responsibility were the lowest Health-promoting lifestyle behaviors.

Keywords: *Health promotion, nursing students, social support*

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Introduction

Over the years, health promotion has been greatly emphasized in the healthcare field. There has been a shift in prioritizing the wellness of clients rather than focusing on treatment and curing of diseases. In nursing, much priority is given in disease prevention and the promotion of wellness among individual clients, communities, and population groups. As nurses share the majority of the healthcare workforce, health promotion is one of their major responsibilities.

Today, health promotion is very relevant and is seen as a concept and tool to alleviate the burden of the many existing diseases and address public health issues (Kumar & Preetha, 2012). The Ottawa Charter for Health Promotion, a framework used to guide health programs, contends that there is a necessity for people to have an increased control and participation in the improvement of their health status (Fry, 2017). The Health promotion is proven to be an effective way to help people adopt a healthy lifestyle (Pati, Chauhan, Mahapatra, Sinha, & Pati, 2017). Healthy lifestyle provides the benefits of being less likely to encounter diseases, fewer hospitalizations and less spending on healthcare. However, before an individual is able to exercise his or her own actions toward health promotion, several factors come to interplay.

Social support is key towards a healthy lifestyle. Reblin and Uchino (2008) found that social support is related to the physical health of individuals. Given that health promotion is a shared responsibility of both the healthcare professional and the client, it is thus important to look into social support as an important factor in motivating people in seeking their highest health potential. Findings related to social support can be utilized to enhance its services directed towards improving the health of the students. This notion is supported by the study of Zamani-Alavijeh, Dehkordi, and Shahry (2017) which recognizes that social support in universities is important, particularly to students of medical sciences.

Since there is diversity in the field of nursing practice and that health promotion should be advocated within various social settings, a particular client population has been of interest to the researcher. Being in the academe, the researcher has observed that college students are some of the potential clients which are expected to have difficulty in having Health-promoting lifestyle given the rigorous academic demands and them being greatly under parental and peer influences. Their semi-independence in decision-making may contribute to a different pattern of health-seeking and Health-promoting behaviors (Tavolacci, Delay, Grigioni, Dechelotte, & Ladner, 2018).

The researcher was also interested in nursing students because, in contrast to students from other courses, they may have a unique way of living and manifesting health promoting behavior since they are expected to be familiar with the concepts of health promotion and ways of achieving it (Shriver, 2000). Furthermore, it is also interesting to investigate the perceived social support being received by nursing students. Thus, in promoting a healthy lifestyle on this particular group, the

influence of social support should be carefully considered and is a very challenging responsibility that nurses could face. The researcher is an employee of the selected university; thus it is her desire to gather enough data as a basis for providing a healthy setting for the students.

This research was conducted to determine if there is a difference between the profile variables of the nursing students, their perceived social support measure and the health promoting lifestyles they practice.

Methods

Population and Design

The Descriptive-comparative research method was used to determine if there is a difference between the profile variables, perceived social support measure and health promoting lifestyles of nursing students in a selected university. The survey questionnaires were answered by one hundred eighteen (118) regular nursing students currently enrolled in the college at the time of the Research. The total enumeration was achieved due to the relatively small number of students.

Instruments

The researcher adapted and used two standardized instruments with permission from the original authors. These are the Health-promoting Lifestyle Profile II (HPLP II) which measures health promoting lifestyle and Personal Resource Questionnaire (PRQ 2000) designed to measure social support. The survey questionnaire consisted of three parts: 1) Demographic Profile, 2) Health Promoting Lifestyle Profile II (HPLP II), and 3) PRQ 2000.

Developed by Walker, Sechrist, and Pender in 1987, HPLP II was conceptualized to measure health promoting lifestyle using a 52-item, 4-point Likert scale questionnaire composed of a total scale and six subscales. The six subscales and corresponding item number in the tool are as follows: Health Responsibility (items 1 to 9), Physical Activity (items 10 to 17), Nutrition (items 18 to 26, Spiritual Growth (items 27 to 35), Interpersonal Relations (items 36 to 44), and Stress Management (items 45 to 52).

The PRQ2000, developed by Brandt and Weinert in 2000, measures social support. It is a 15-item, 7-point Likert scale questionnaire. The item responses range from 1 (strongly disagree) to 7 (strongly agree). The score for each item was added to come up with a total score. The total score can possibly range from 15 to 105 (Weinert, 2003). The higher the score means a higher perceived social support. The internal consistency of PRQ2000 ranges from 0.87-0.93.

Since the tools were adapted for local use, these were again tested for validity and reliability. Pre-testing with 20 nursing students from another school were randomly selected. With the aid of three experts, a psychometrician, a nurse-researcher and a linguist, content validity index of 1.00 was measured which indicates the validity of the tools and Cronbach alpha results were 0.834 and 0.891 for the HPLP II and PRQ 2000, respectively, signifying their reliability. The tool was printed in English.

Data Analysis

In order to analyze the gathered data, descriptive statistics such as mean, frequency and percentage were used. T-test and one-wat ANOVA was also used to compare the variables and see if there are significant differences between their values

Results

Out of one hundred eighteen (118) regular nursing students who were asked to participate in this study, majority of the respondents' age ranges from 19 to 21 years old (70.3%). More than half of them were female (51.7%) and mostly are from the third year (39%) and fourth year (38.1%).

Table 1. Profile of the Respondents

A. Age of Respondents	Frequency	Percent (%)
<= 18	29	24.6
19 - 21	83	70.3
22+	6	5.1
Total	**118**	**100**
B. Gender		
Male	57	48.3
Female	61	51.7
Total	**118**	**100**
C. Year Level		
First year	8	6.8
Second year	19	16.1
Third year	46	39.0
Fourth year	45	38.1
Total	**118**	**100**

Table 2 suggests that overall mean scores were highest in the subscales of spiritual growth (Mean=3.21) and interpersonal relations (Mean=3.12) whereas nutrition garnered the lowest mean score for the subscales (Mean=2.45).

Table 2. Health Promoting Lifestyle

Subscales	Mean	Description
Health Responsibility	2.51	Often
Physical Activity	2.50	Often
Nutrition	2.45	Sometimes
Spiritual Growth	3.21	Often
Interpersonal Relations	3.12	Often
Stress Management	2.68	Often

Legend: 3.50-4.00 = Routinely; 2.50-3.49 = Often; 1.50-2.49 = Sometimes; 1.00-1.49 = Never

Perceived social support was highest in terms of the respondents' having someone who loves and cares for them (Mean=6.20) as shown in Table 3. It can also be seen that the respondents' overall level of social support is positive as most of the scores fall between "somewhat agree" to "agree". Meanwhile, the respondents felt that the lowest social support they got were in terms of acknowledgment of their achievements or progress in their school work and other things they do (Mean=5.36).

Table 3. Distribution of the Respondents' Perceived Social Support Measure

Personal Resource Questionnaire	Mean	Description	Ranking
There is someone I feel close to who makes me feel secure.	5.95	Agree	3
I belong to a group in which I feel important.	5.80	Agree	10
People let me know how I do well at my work (job, homemaking).	5.36	Somewhat Agree	15
I have enough contact with the person who makes me feel special.	5.76	Agree	11
I spend time with others who have the same interest that I do.	5.89	Agree	7
Others let me know that they enjoy working with me (job, committees, projects).	5.56	Agree	14
There are people who are available if I need help over an extended period of time.	5.66	Agree	13
Among my group of friends we do favors for each other.	5.83	Agree	9
I have the opportunity to encourage other to develop their interest and skill.	5.68	Agree	12
I have relatives or friends that will help me out even if I can't pay them back.	5.93	Agree	5
When I am upset, there is someone I can be with who lets me by myself.	5.85	Agree	8
I know that others appreciate me as a person.	5.94	Agree	4
There is someone who loves and cares about me.	6.20	Agree	1
I have people to share social events and fun activities with.	6.19	Agree	2
I have a sense of being needed by another person.	5.92	Agree	6

Legend: 6.50-7.00= Strongly Agree; 5.50-6.49=Agree; 4.50-5.49= Somewhat Agree; 3.50-4.49 =Neutral; 2.50-3.49= Somewhat Disagree; 1.50-2.49= Disagree; 1.00-1.49= Strongly Disagree

Based on the ANOVA results, there is a significant difference between age and the respondents' health promoting behavior in terms of nutrition ($p<0.042$) and stress management ($p<0.008$) as illustrated in Table 4. However, the health promoting lifestyle of the different age groups has no significant difference. On the other hand, a significant difference between the respondents' gender and physical activity ($p<0.004$) was found while other health promoting lifestyle showed no significant difference.

In terms of year level, no significant difference was found with their health promoting lifestyle. Between the respondents' year level and their health promoting lifestyle.

Table 4. Difference Between the Profile Variables and the Health Promoting Lifestyle of the Respondents

Profile Variables	Groups	Mean	Subscales	F value/t value	P value	Description
Age	<18	2.45	Health Responsibility	1.033	0.359	Not Significant
	19-21	2.51				
	>22	2.76				
	<18	2.41	Physical Activity	0.848	0.431	Not Significant
	19-21	2.51				
	>22	2.80				
	<18	2.44	Nutrition	3.266	0.042	Significant
	19-21	2.41				
	>22	2.98				
	<18	3.23	Spiritual Growth	0.082	0.921	Not Significant
	19-21	3.20				
	>22	3.30				
	<18	3.17	Interpersonal Relations	0.248	0.781	Not Significant
	19-21	3.09				
	>22	3.15				
	<18	2.54	Stress Management	5.037	0.008	Significant
	19-21	2.69				
	>22	3.23				
Gender	Male	2.51	Health Responsibility	0.084	0.933	Not Significant
	Female	2.51				
	Male	2.68	Physical Activity	2.902	0.004	Significant
	Female	2.33				
	Male	2.50	Nutrition	1.087	0.279	Not Significant
	Female	2.40				
	Male	3.14	Spiritual Growth	-1.241	0.217	Not Significant
	Female	3.28				
	Male	3.06	Interpersonal Relations	-1.138	0.258	Not Significant
	Female	3.17				
	Male	2.71	Stress Management	0.545	0.587	Not Significant
	Female	2.66				

Profile Variables	Groups	Mean	Subscales	F value/t value	P value	Description
Year Level	First Year	2.28	Health Responsibility	1.966	0.123	Not Significant
	Second Year	2.67				
	Third Year	2.56				
	Fourth Year	2.43				
	First Year	2.33	Physical Activity	0.336	0.800	Not Significant
	Second Year	2.42				
	Third Year	2.55				
	Fourth Year	2.50				
	First Year	2.38	Nutrition	1.052	0.373	Not Significant
	Second Year	2.61				
	Third Year	2.37				
	Fourth Year	2.47				
	First Year	3.24	Spiritual Growth	0.809	0.491	Not Significant
	Second Year	3.39				
	Third Year	3.14				
	Fourth Year	3.21				
	First Year	3.17	Interpersonal Relations	0.985	0.403	Not Significant
	Second Year	3.28				
	Third Year	3.13				
	Fourth Year	3.03				
	First Year	2.57	Stress Management	0.377	0.770	Not Significant
	Second Year	2.62				
	Third Year	2.68				
	Fourth Year	2.73				

Using one-way ANOVA, it was found that there was no significant difference between the respondents' age ($p>0.756$) and year level ($p>0.708$) and perceived social support as seen in Table 5. On the other hand, there was a significant difference found between gender and perceived social support ($p<0.010$).

Table 5. Difference Between the Profile and Perceived Social Support Measure of the Respondents

Subscales	Groups	Mean	Test Statistics	P value	Description
Age Group	<18	5.79	*F: 0.281	0.756	Not Significant
	19-21	5.98			
	>22	5.83			
Gender	Male	5.61	**t: -2.606	0.01	Significant
	Female	6.05			
Year level	First Year	6.13	*F: 0.465	0.708	Not Significant
	Second Year	6.11			
	Third Year	5.78			
	Fourth Year	5.96			

*F- ANOVA
**t-t-test

Discussion

The researcher noted that though female respondents were more than males as nursing is a course which is generally dominated by females it is however presumed that the difference in number between male and female respondents was not that large because the selected college is still popularly known to be an all-boys school even if it now accepts female students. On the other hand, it can be seen that most respondents were from the upper year levels.

In terms of health promoting lifestyle, the respondents rated the subscale of spiritual growth. This could be attributed to the fact that respondents in the study are homogenously from a Catholic educational institution which offers a wide range of spiritual formation (i.e. retreats, regular masses, recollections, etc.), perhaps this being a sign of its effectiveness, and that student nurses are being trained to be experts in communications and interpersonal relations as part of the nursing curriculum. In addition, interpersonal relations were also rated high by the respondents. Often, students spend their time with close friends and regard friends as the most important interpersonal relationships especially for those whose ages are 16 to 18 (Bokhorst, Sumter & Westenberg, 2009). This may be because the respondents' time are mostly spent and shared with their classmates who are also their friends in school. Aside from that, the school offers a variety of activities that enhance cohesiveness among its students such as the General Assembly, Integration Week, Sophomores' Team Building and Peace Retreat. This finding was also supported by the study of Hui (2002) who concluded that nursing students in Hongkong have good interpersonal relations, however, it was also revealed that spiritual growth was found to be their lowest area.

Nutrition, on the other hand, garnered the lowest mean score for the subscales, possible due to the fact that being busy students who are always in a hurry, it is indeed easier for them to choose fast food stores around the school which are convenient and cheap. According to Ayranci, Erenoglu and Son (2010), students tend to opt for fast food meals because of its convenience, taste and availability.

In terms of perceived social support, having someone who loves and cares for the respondents was ranked highest. It can also be seen that the respondents' overall level of social support is positive as most of the scores fall between "somewhat agree" to "agree", as shown in table 3. Meanwhile, the respondents felt that the lowest social support they got were in terms of acknowledgment of their achievements or progress in their school work and other things they do. Indeed, the support of family and friends, as well as neighborhood social cohesion, was regarded to be positively influential (Mulvaney-Day, Alegria & Sribney, 2006). In fact, knowing that these support sources are available can lead to healthy lifestyle beliefs (Kelly, Melnyk & Jacobson, 2011). Meanwhile, lack of recognition from these sources of social support can result to a higher level of stresses and poor psychological well-being (Laurence, Williams & Eiland, 2009; Lin, 2009; Weber; Wilks & Spivey, 2010; Hirsch & Barton, 2011). In the school, social support for nursing students is

continuously being enhanced in cooperation mainly with their parents. The school provides parents' orientation annually and regular semestral feedback most especially to problematic students. However, lack of acknowledgment coming from the students' significant others may be due to existing conflicts within their families or parents who are either abroad or busy with their careers that they spend little time guiding and seeing through their children's progress in school.

It was analyzed that there is a significant difference between age and the respondents' health promoting behavior in terms of nutrition and stress management as illustrated in Table 4. However, the health promoting lifestyle of the different age groups has no significant difference, which means that each age group has its own health promoting lifestyle. With the results, it could be inferred that age can be a determinant of the respondents' nutrition and stress management as mean scores for these two subscales increase as age increases. Thus, maturity can be a factor for one to adequately make healthier food choices and cope with life's stresses. As Can and colleagues (2008) found, those taking a health-related course such as nursing and are continuously being taught about healthy lifestyle choices may display a more positive health promoting behavior than those who are not. Specifically, nursing students take nutrition and diet therapy as part of the curriculum. However, it should not be disregarded that even if students in tertiary educational institutions are generally part of the healthier population groups because of their age, they still have relevant health problems which need to be addressed by health promoting activities in schools (Stock et al., 2003).

Meanwhile, results showed that there is a significant difference between the respondents' gender and physical activity as shown in Table 4. Similar to age, there is no significant difference between the respondents' gender and overall health promoting lifestyle ($p>0.60$). Being male or female can, directly and indirectly, influence the behavior of one's physical activity (Wu & Pender, 2005). In several studies, males were found to have greater physical activities and are less likely to have sedentary lifestyles than females (Chen, Haase & Fox, 2007; Guedes et al, 2009; Lee, Loprinzi & Trost, 2010; Aniza & Fairuz, 2009; Hwang & Kim, 2011; Locke et al, 2006; Mak et al, 2011).

Unlike in gender, no significant difference between the respondents' year level and their health promoting lifestyle in terms of their subscale scores and overall scores. Even if the respondents are nursing students and health promoting lifestyle were expected to increase as they move towards their senior years as found by the studies of Can et al. (2008) and Alpar et al. (2008), mean scores of the respondents vary in each subscale and this pattern was not seen. This researcher opines that the lack of difference in health promoting lifestyle according to age is due to the fact that most belong to the same age group,

Likewise, no significant difference between the respondents' age and year level and perceived social support is seen. No distinct pattern was noted. Hence, these variables cannot be said as determinants for an increase or decrease in one's overall perceived social support.

On the other hand, there was a significant difference found between gender and perceived social support. Mean score for female respondents was slightly higher than male respondents. This means that females have higher perceived social support than males. This may be due to common knowledge that females are more expressive than males and thus have groups of people they can talk to about personal problems. This is similar to the findings of Bokhorst, Sumter, and Westernberg (2009) where they found that female adolescents gain more social support from friends, teachers, parents, and classmates than males.

Conclusion

Based on the findings of the study, the least suitable Health-promoting lifestyle behaviors were seen among respondents in terms of nutrition, physical activity, stress management and health responsibility. Respondents generally suggest lack of consistent acknowledgment for their works as a display of poor social support. Lastly, no significant difference exists in the respondent's health promoting behavior but being a female was seen to significantly gain more support than a male.

Recommendation

The researcher also recommends that there be health promotion program, nutrition awareness campaign, physical awareness campaign, school-wide campaign for awareness of school services like guidance and counseling services, and that health education sessions be spearheaded by the health services department of the school with additional emphasis on male students considering that they are less likely to perceive the support provided.

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RESEARCH ARTICLE

Maternal and Infant Care Beliefs and Practices of Aeta Mothers in Central Luzon, Philippines

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Abstract

Background: This study attempts at understanding the Aetas concept of maternal and infant care, specifically, beliefs and practices of Aeta mothers during pregnancy, childbirth and care of the infant.

Methodology: Qualitative descriptive design was utilized in this research. Forty Aeta mothers were informants of this study selected via purposive sampling. Participant observation, formal and informal interviews and examination of relevant documents were the instrument for data collection.

Findings: Most respondents were between 16-27 years old, from the province of Zambales, with two pregnancies and one living child. The majority had home deliveries attended by traditional birth attendants or next of kin and had visits to the Rural Health Units for prenatal check-up. It was found that the most Aeta mothers usually visit the Rural Health Unit in their second trimester. The mothers also rely on traditional beliefs and practices passed on from elders of the community particularly on diet, hygiene, and faith in God, preparation prior to delivery, cord care and use of placenta.

Conclusion: The findings showed that majority of the Aeta mothers interviewed adhered to some form of belief and practice that were passed to them by their elders.

Implication: Stakeholders such as government and non-government organizations should pursue promoting and enriching beliefs and practices of the Aeta and reinforcing

programs with an emphasis on indigenous minorities to follow safe delivery and motherhood practices that are culturally acceptable.

Keywords: *Aeta, health beliefs and practices, perinatal, pregnant women, safe delivery*

Introduction

In the Philippines, traditional maternal and infant care beliefs and practices are still dominant in contemporary Filipino culture and are perpetuated by close female family relatives especially by indigenous people in the rural, remote and far-flung areas. For these underdeveloped and sometimes inaccessible areas, deep hold of traditional pre-Christian folk beliefs and animism characterized these ethnic communities (Palispis, 2012). The Aetas being one of the most prominent ethnic minority groups found in the Philippines that have held on to their cultural beliefs. Understandably, this indigenous group has been inhabiting the archipelago even before the Spanish colonizers came though despite few accounts have been written. Early writers described them as "small blacks" which roamed in the mountains living on roots and game which they killed with bows and arrows (David, 2011). The Spaniards colonizers referred to them as "Negritos" or "Little Black One" being short, dark-skinned and kinky-haired. Today they known by different names: "Ayta", "Agta", "Atta", "Ati" and "Ita". These names are usually based on their geographical location, history, or relationship with other people and are spread over the island of Luzon, including the Visayas and Mindanao. Approximately, the Negrito numbers around 90,000 throughout the archipelago and are divided into 25 ethnolinguistic groups dispersed in bands from Luzon to Mindanao. The most numerous are those found in the island of Luzon. Perpetually pushed into the hinterlands of Central Luzon, mainly in the provinces of Zambales, Bataan and Pampanga, and in other parts of the country and rely on natural resources as their major source for their economic activity such as foraging, hunting wild animals, livestock and poultry production, farming, making and selling hard brooms (Tindowen, 2016) and conditional cash transfer programs of the government such as the Pantawid Pampamilya Pilipino Program (4Ps). Exploring and identifying traditional maternal and infant care beliefs and practices of the Aeta mothers was the main aim of this study. Specifically, this study focused on understanding their unique beliefs and practices as well as discovering and appreciating their underlying meanings.

Methods

Research Design

Qualitative descriptive method was utilized in this research with semi-structured interview as the main tool in gathering data and using non-participant observation, interview and documents analysis. In this study, the researcher relied on observation, interviews, and archival analysis

to provide deep understanding of what is studied.

Locale of the Study

Mothers from pre-determined Aeta communities in provinces comprising Central Luzon namely Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac and Zambales were informants of this study. Areas and communities were chosen by consultations from local and national council of indigenous people offices, the concerned local government units, higher education institutions and tribal councils.

Data Collection Procedure

Prior permission from the council of elders and the tribal chieftain of each Aeta community was obtained as well as from local government units. Informed consent was gathered from informants before interview and due effort was made to clearly and fully explain the study based on their level of understanding. Interviews and observation in the community in the course 6 months was the main instrument for data gathering. Local dialect was employed in communicating with the informants and field diary and recorder were used for documentation. Validation was done with key informants and chieftain of the respective community. Confidentiality and anonymity were maintained throughout the conduct of the study. Informants of this study were chosen according to the following criteria: must be an Aeta women who have been pregnant and had at least one child alive and have been in the community since birth.

Forty (40) were the informants from indigenous Aeta communities in from the provinces of Central Luzon. Almost half were aged 16-27 years old. Most are from the Province of Zambales, having been pregnant twice and with one child alive. Majority of the mothers had home deliveries attended by traditional birth attendants. Analysis of the data involved collecting and documenting the data by the informants, transcribing the data and identifying the major themes.

Findings

On Being Pregnant

Most of the informants expressed a passive attitude with regards to pregnancy. According to most of them, they will know they were pregnant when they feel their abdomens getting bigger or heavier although some younger informants say they suspected to be with a child when they stopped having their monthly menstruation. It is therefore not uncommon to see Aeta mothers visiting the rural health unit at least once or twice for their prenatal checkup but well beyond the first trimester of pregnancy. The mothers described the check up as the midwives “touching their abdomens with their palms” then they will be given vitamins for free. As one informant said, "Kung ano man ang ipagkaloob

ng Diyos…" ("Whatever God gives…") The response captures the attitude that most Aetas have not only towards pregnancy but other circumstances in their lives beyond their control.

According to the informants, their daily physical activities did not change even though they were pregnant. Being an Aeta, a woman is expected to help their husbands earn a living. They perform arduous tasks such as planting crops, harvesting "lagundi" and other herbs in the forest to be sold to merchants or doing strenuous chores like fetching water and carrying them in their heads at the same time. The Aeta women do not have restrictions in their daily activities and any harmful consequence is usually attributed to an act of God.

There is no major diet restrictions described by the informants except for anything sour. They believe that the sense of smell plays a significant role during the prenatal phase of pregnancy. The Aeta mothers mentioned that the smell or ingesting vinegar or pepper ingestion is forbidden because it causes mental problems. "Sa amin po suka, sili. (For us, its vinegar, pepper). Yun daw nakakabaliw" (It can cause mental problems)…

The informants can have whatever food they like but added that eating uncooked whole native eggs while pregnant helps in easy delivery of the baby. The importance of eating green, leafy vegetables was also stressed out by the participants. The Aetas eat to survive and will take whatever is available. Being an ethnic cultural minority, this attitude has been engrained in them which enabled them to survive during difficult times. Grey (2016) attributes this to the Aetas being driven into "a socially, politically, and economically disadvantageous position vis a vis the dominant lowland populations". This was further intensified by isolation of their upland habitat and by a lifestyle much unlike that of the lowlands, racial differences and sociopolitical indifference towards them aggravated after the eruption of Mt. Pinatubo.

The Aeta women preparation of the "banigan" (beddings) is still done in some areas prior to delivery especially for mothers who gives birth by themselves with the husband or significant kin present only for support in some provinces. The "banigan" is described as a mat where all the things that will be needed is within reach such as the instrument for cutting the umbilical cord (the "buho" or skin of bamboo sliced to give it a sharp edge), the container with warm water for washing the infant and clean set of clothes and the dried grounded coconut mixed with alcohol which they apply around the umbilicus. Variations include a high pillow made of sack filled with clothes to elevate the head and a rope to hold during delivery and foot stools for support as also being essential. Superstitious beliefs still abound such as massaging their abdomen in the river in the early morning so that the baby comes out head first. Some of the Aeta mothers believe in "usog" but describes it as an evil eye or the greeting that unconsciously inflicts illness to another. This is contrary to the study of Grey (2016) which described this act as "tuyaw" whereas "usog" is the term used for the dialect term for the chant (Grey, 2016). Martinez, Cortez and Contreras (2019) however agree in that "usog" is described as a transmittable mystical force unintentionally inflicted by humans through an eye or physical contact; thereby producing physical symptoms among its victims.

Giving Birth

When in labor, the Aeta mothers use chili pepper leaves and stroke the abdomen and the lower back following the sign of the cross to avoid premature labor. The informants also wrap a piece of cloth or "bigkis" above the waist just below the ribs so that the baby may continue its descent. On the other hand, when contractions become frequent and painful, the expectant mother is made to take one fresh whole egg from a native chicken or "tanglad" (lemon grass) in the belief that this will hasten childbirth.

Self-assisted delivery by the Aeta mothers is done by assuming a slightly slanted sitting position, with feet pressed upon a stool and both hands holding a rope used to press down when doing the act of "pushing" the baby.

The use of "buho" (a slice of bamboo bark used to cut the umbilical cord) is still practiced in cutting the cord of their newborns in almost all of the provinces. Furthermore, some of the informants still apply a mixed of powdered coconut shell or coconut meat with alcohol on the navel believing to prevent wound infection. For the majority of them, alcohol is now the only one used for drying of the cord. The use of the "buho" is similar to the "runo" of the Kalanguya used in cutting the cord. Low and middle income countries have traditionally used a variety of substances in caring for the cord of which the desire to promote healing and hasten cord separation are the underlying beliefs related to application of substances to the umbilical cord (Coffey & Brown, 2017).

To give birth, all the informants expressed having a sense of spirituality or faith in God as a necessity which they attribute to influences by Catholicism or other religious sects. They believe that a trusting faith will lead to a safe delivery and healthy child. Moreover, almost all of the mothers had home deliveries. Reasons such as to save money for future use or the lack of it, the distance or inaccessibility of their place of residence as well as adherence to traditional beliefs were mentioned why they chose to do so. Most delivered by themselves in the presence of their significant kin while some by native birth attendants. The elderly informants believed that complications are caused by chemicals in foods brought by the modernization.

Most Aeta mothers said they no longer visit the health center after delivery. The native birth attendants usually visit and take care of them for 9 days. They also added that they utilized herbal medicines for their fast recovery. They are also prohibited to work hard for about 2 months.

Furthermore, the cord is wrapped and hanged beside the window or near the stove to dry. The informants mix the dried cord in water and given to the infant to treat ailments such as "taon" (term used for diarrhea with greenish stools) or fever.

Based on the informants, the “inunan” (placenta) is either buried near or thrown in the river for varied reasons. Burying so the baby will not be “mainitin ang ulo” (hot-headed). On the other hand, the also believe that placenta buried to an area with flowing rain will make the baby tolerant to cold weather and will be cool-headed. This practice is especially common in the provinces of Aurora, Nueva Ecija, Tarlac and Zambales as compared to the more “modern” provinces of Bataan, Bulacan and Pampanga.

The mother who gave birth are given hot porridge or hot drinks while sour food is strictly avoided after for the first month or until there is no more blood discharge. This includes vinegar among others as they believe this causes insanity and “binat”.

Majority of the Aeta mothers follow a prescribed period of 5 – 7 days after giving birth before they are allowed to take a bath. According to them, this is to prevent “binat”, a state characterized by having flu-like symptoms. The first bath is described as a warm bath with a concoction of herbs such as guava, or lagundi leaves. This for them is to renew their strength which they have exhausted during the delivery. This practice is strong especially in the provinces of Bataan, Nueva Ecija, Tarlac and Zambales.

Breastfeeding

Most of the informants have all breastfed their newborns and are prohibited to eat salty foods which they believe hinders the flow of milk. Eating vegetables is also believed to improve its flow. Furthermore, they breastfeed their newborns for 6 months or until they eventually wean themselves. Weaning is by using chili on her breast to wean her child. They all agree that breastfeeding is the best way to promote emotional and physical bonding with their newborn.

Conclusion

From the findings include, it is shown that majority of the Aeta mothers interviewed adheres to some form of belief and practice and that these beliefs and practices were taught to them by the elders who by most practiced it from generations to generations. Beliefs regarding “hot” and ”cold” and relapse still dominate the mothers understanding about delivery. Though health workers and health programs have created an awareness regarding safe pregnancy, there are those who still cling to the old ways. Factors such as the remoteness and accessibility of their community, lack of finances, lack of health centers on workers within their community as reasons for some of the Aeta not being able to access health programs.

Implications

1. Rural Health midwives are advised to have regular visits to the Aeta mothers to their respective communities. This will assist the mothers in monitoring their pregnancies to avoid possible problems.

2. A regular health promotion seminar be conducted to the community especially to the women to educate them about pregnancy and other significant health concerns.

3. The perinatal health practices of the indigenous mothers are ingenious and unique. However, some traditions may result in possible harm to the Aetas themselves. Hence, health dissemination and promoting understanding of the Aetas' practices should be a priority.

4. A thorough investigation of the culture of Aeta mothers through immersion be done to have a better understanding of the ethnographic background of their perinatal beliefs and practices.

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RESEARCH ARTICLE

The Health Ritual of "Pag-aanito" among the Aetas of Nabuclod, Pampanga, Philippines

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Abstract

A defining characteristic of an indigenous group is that it has preserved its unique traditional ways of living, belief system or pertinent rituals amidst the presence of modernity. One of the indigenous group residing in the Philippines are the Aeta people, found scattered in the archipelago. One of the unique cultural health beliefs of this indigenous group revolves around the spirit called "anito" and the ritual for appeasing this spirit termed as "pag-aanito." This paper explores the contemporary understanding of a select group of Aeta from Pampanga, Philippines on these unique cultural health beliefs and how their understanding and appreciation of their traditional customs affects their perception of the world, themselves, and their health.

Keywords: *Focused ethnography, health knowledge, indigenous medicine*

Context of the Studv

A defining characteristic of an indigenous group is that it has preserved its unique traditional ways of living, belief system or pertinent rituals amidst the presence of modernity. One of the indigenous group residing in the Philippines are the Aeta people, found scattered in the archipelago and is often described as its earliest inhabitants. Aetas are pygmy people, nomadic in nature and are traditionally animist (Balila et al., 2014; Shimzu, 1989, Waddington, 2002). One of the unique beliefs of the Aeta people is the anito, a benevolent, environmental spirit believed to inhabit the river, sea, hills and

various other places. They believed that the anitos are the original dweller of the earth and living in harmony with them is an essential part of maintaining their people's health and well-being. For the Aetas, a break in this balance will bring about illness to the individual (Balila et al., 2014; Catseye, 2004; Torres, 2012).

In time of illness, therefore, a healer, the mang-aanito, is often called to help in restoring the harmony with the anito and return the individual back to health. Brosius (1990) describe this curing séance, the anituan, as a dramatic performance which involves trance, dances and dialogues between the healer, the anito and the audience. Because of the nomadic nature of the Aeta people and the changing modern culture they are in, this study aims to understand the contemporary conceptualization of the pag-aanito among a select group of Aeta people residing in Nabuclod, Floridablanca Pampanga as its relates to their identity and sense of well-being.

Locale of the Studv

Nabuclod is one of the declared Ancestral Domains of the Aetas of Pampanga. The current population of the area is composed of Aetas from Pampanga and the neighboring towns of Zambales; and few "lowlanders," which mainly consist of Kapampangans. The present site of barangay Nabuclod is a resettlement area created after the eruption of Mt. Pinatubo in 1998. It must be noted however that majority of the populations residing in Nabuclod are the old residents of the area prior to the eruption of Mt. Pinatubo. According to the 2010 survey of the National Statistical Office, barangay Nabuclod is composed of seven (7) sitios with a rough estimated population of 3,000 ("Municipal Profile-Official website of Municipality of Floridablanca, Province of Pampanga," 2018) largely attributed to their nomadic existence and inaccessibility of some Aetas still living in the mountains surrounding the area (Early & Headland, 1998). The place is accessible through land travel via small vehicle through a mixture of dirt road and pavement and is 30 minutes away from the town center of Floridablanca. The hilly terrain of Nabuclod is mostly accessible by motorcycle and the total area of the declared Ancestral Domain includes the barangay center, the sitios and the surrounding mountains with the farthest sitio being two hours away from the barangay center accessible only by foot through hiking along the mountainous terrain. Local governance is patterned from the existing local political system while the "council of elders" may at times be convened to decide to things related to the welfare of the community. Catholicism, Islam, Iglesia ni Cristo, and varied sect of Christianity is also present in the community although folk and traditional belief are inculcated and practiced within these denominations. Majority of the houses are made of cement and wood although there are still traditional houses made of Nipa scattered around the area and is mostly present as one move away from the barangay center. The source of living of the Aetas of Nabuclod is primarily farming with ampalaya (bitter gourd) being the major produce of the barangay. Besides farming, charcoal making is also practiced by few Aetas to augment the meager income of their family. The study locale was one of the formally adopted communities of the researcher's prior institution where he was formerly affiliated with. As part of understanding the community dynamics in terms of specific culture and how

it relates to identity and health, this research was conceptualized.

Methods

This study was anchored on the interpretative philosophy, specifically qualitative approach, to present a comprehensive summary of experiences of a select groups of individuals (Bernard, 2017; Lambert, V. & Lambert, C., 2012; Lewis, 2015). After securing consent from the leaders of the community, its members and the participating individuals, three key informants were chosen based on the extensiveness of their traditional knowledge on pag-aanito. Other members of the community were also interviewed to provide context of the community member's contemporary understanding of the pag-aanito. Narratives from the key informants and other informants serve as the basis for the analysis of their stories. Unstructured free-flowing multiple interviews were done on the homes of the informants from the different sitios of barangay Nabuclod. Prior to the interviews, the researcher already did an immersion in the community for a period of two years, thus the informants were well aware of the positionality of the researcher and the objective of the study. The key informants were specifically from sitio Inararo and Dangas, the farthest sitios from the barangay center. Interviews lasted for at least 30 minutes focusing on stories, personal experiences, and knowledge on pag-aanito. All interviews were tape recorded with the consent of the informants.

Findings

The following findings were culled out based on the analysis of the informants' narratives. For the informants, the anito represent nature spirits residing in specific places within the community and outside the boundaries of human settlement, specifically, the mountains. The physical attributes of the anito cannot be described since the sight of the anito would cost one's life. Although the anito seems to exist in another metaphysical plane, the informants believed that disharmony with these spirits could cause illness by two means, one thru possession (naanito) and the other by being "greeted/ touched" (nabati) by these spirits. It should be noted however that another concept, nausog¸ is similar to the notion of nabati. Nabati is literally translated to "being greeted," nausog colloquially denotes "being touched" by the spirits. The relationship of the anito to the person seems to delineate being naanito, to just being nausog/nabati, where in naanito, the person and the anito is in the same body while in nausog/nabati no possession is involved. According to the informants, the pag-aanito is the "highest" form of ritual that a human person could perform.

Specific rituals and healing modalities are traditionally assigned based on the gravidity of the anitos effect on the person. For nausog/nabati, the ritual of pagtatawas is enough to appease the spirit while for those naanito, the ritual of pag-aanito is deemed necessary. According to the informants, anybody can learn the ritual of pagtatawas but the ritual of pag-aanito is reserved only to those who belong to the lineage of mang-aanito. During the ritual, specific shamanic objects, like a

red cloth and beads and a knife, are essential. The red cloth is adorned with beads and must be "activated" by a village elder prior to use while the knife is an heirloom piece passed down from one generation to another. Beside the ritual object, another essential feature of the pag-aanito is the dance called talipe, and the chanting of the mang-aanito in the Aeta language. During the dance, the members of the community participating in the ritual will provide the tempo and music by tapping or clapping while the mang-aanito dances in circle around the person, constantly waving and swaying the red cloth on the person as if to drive away the anito from within. Chanting by the mang-aanito was done while the dance is being performed. It is worth nothing that during the ritual, the mang-aanito is believed to be possessed by another anito which either persuade or drive away the spirit residing in the person being healed. According to the informants, during the ritual, the mang-aanito and the naanito (sick person) are unaware of what is happening and it is only after the séance that their consciousness returns back to them. The ritual also involves the family and relative of both the mang-aanito and the naanito where the mang-aanito's family helps in preparing the ritual space and in providing melody through guitar while the naanito's family and the other members of the community surround in circle the mang-aanito ¬and the naanito to create the boundary of the ritual space.

The ritual of pang-aanito it seems is a communal séance where the members of the community actively participate and the mang-aanito is the medium through which the anitos or spirits communicates with each other.

According to the informants, the ritual of pag-aanito in its purest and traditional form is currently rarely performed because of the limited access to the mang-aanito. Further, what the "lowland" people often see in performances is merely an imitation of the original ritual. Also, the informants further claimed that the ritual of pag-aanito can also be done to non-Aeta people and always yields positive results.

One limitation of this study was that no actual performance of the pag-aanito was observed since the ritual cannot be recreated without an actual naanito person involved. At the moment, there are only two persons identified by the community as capable of doing the ritual. During the time of data gathering, the identified mang-aanitos was not within the vicinity of the research locale. However it is also interesting to note that according to the informants, there are other practitioners of pag-aanito in other Aeta community.

Discussion and Implication

The traditional belief of the Aeta in the concept of anito is still prevalent in the community so much so that specific rules are followed to avoid the wrath of the anito, like avoiding places believed to be the dwelling place of the anito such as specific trees, or mountains (Brosius, 1990; Minoritized & Dehumanized, 1983). Contact with the anito is believed to be deadly so specific rules on when not to go out is also observed by members of the community. It seems that the community believes that

although they co-exist with the anito, unintentional crossing path with an anito causes disharmony in the individual as evidence by the illness and in the community by disrupting the social processes within. The belief in the concept of the anito is a remnant of their traditional belief in a pantheon of gods rule by Apo Namalyari (Dizon, 2015.), where the anito belongs to the lower class of mythical creatures yet seems to affect more the everyday lives of the community members. It seems that since the upper classes of gods reside in secluded places such as the top of mountains, inherently inaccessible to humans, the chance of "meeting" them is close to non-existent whereas the anitos habitation is closer to human settlement thus there is a higher probability of antagonizing them consciously or unconsciously. This encounter with the anitos is seen as the cause of an individual illness (Griffin & Estioko-Griffin, 1985; Shimizu, 1989). Further, this belief in the anitos instill among the Aetas a sense of environmental stewardship (Brosius, 1990; Nyaga & Torres, 2015) since the dwelling places of the anitos must be respected and protected. The belief in the anito is the essence of the practice of pag-aanito, a séance involving chanting, dancing, mediumship and ritual objects aimed at healing the sick person (naanito) by removing the anito causing the illness from the person (Dizon, 2015; Torres, 2012). The dance involves in the pag-aanito is believed to entice the spirit by bribing them with food or gifts or by threatening them with harm using the heirloom knife (Samarena, 2007). The elements of traditional pag-aanito described in literatures is parallel to what the community practices except the ending of the ritual described by Samarena (2007) which involves the mang-aanito falling unconscious as she "absorb" the sickness from the individual. The ritual is a communal affair, where each members of the community performs a specific task (as the audience, as the sick person, as the healer or as a helper) and provides the boundaries of the ritual space where the pag-aanito will be performed such that, without the support of the community, the pag-aanito will not materialize.

Moreover, the decrease in the number séance performed at present times could largely be attributed to the limited number and availability of mang-aanito and the high regards the people of the community place on this specific ritual. The sense of exclusivity of the ritual, that it should be only among Aetas, seems to be dissolving as the community integrates itself to the larger society for which they come in contact with.

It is also interesting to note that all identified practitioner of pag-aanito are women. Although equality among sexes is practiced in the Aeta community as evident by the active participation of women in decision making within their family and among the community (Nyaga & Torres, 2015; Shimizu, 1989), women were seen as more nurturing than men thus the practice of pag-aanito, which in itself is a healing ritual, may have been linked with this idea of nurturing the sick. It must be noted however that the mang-aanito is not given a special status within the community (Torres, 2012) but rather an acknowledgement by its members of the unique ability inherent in that individual. This is again another way by which the Aeta's notion of equality is expressed.

Insight

The ritual of pag-aanito is a cultural heritage of the Aeta people of Nabuclod, Floridablanca Pampanga that embodies the community's sense of oneness, equality, and spirit. It is a unique cultural identifier of their community and has stood the test of modernity. Although it is not as widely practiced as it was before, the concepts and beliefs inherent in it are still being lived by members of the community. This study provides a glimpse on how the concept of pag-aanito, as understood by select members of a cultural community, reflects their inherent values and identities as a people. Further research is indeed needed to fully understand how the other aspect of their culture is currently practiced and understood by them.

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RESEARCH NOTE

Folk Beliefs and Ancient Health Care about Pregnancy in Thai Tradition

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Abstract

The purpose of this article is to study folk beliefs and ancient health care relating to pregnancy in Thai culture. The methods of study include document study and observation. The study results point out that folk beliefs and ancient health care relating to pregnancy in Thai tradition can be divided into two periods, namely pregnancy period and post pregnancy period. However, the folk beliefs relating to pregnancy connect with healthcare methods and the prevention of the potential risk to mothers and their babies. Without the western medical technology, the ancient health care has focused on the care covering and connecting between bodies and souls, which could be seen in the forms of various prohibition and practical guidelines.

Keywords: *Ancient Health Care, Folk Beliefs, Pregnancy, Thai Tradition*

Introduction

Health behavior of people in each community relates to or is framed by the community's social factors (World Health Organization, 2010). In the past, prior to the existence of medical science and new technology, the belief paid vital roles in shaving up health care behavior of people in the community, especially the beliefs in Holy Spirit or superstition.

Pregnancy is a process of the beginning of the birth of human life and the pass on of human race for the existence of the society. In the ancient time when medical science was underdeveloped, pregnancy was regarded as critical and risky

conditions with worry and fear among family members. Social members, therefore, created mechanical factors to control and lessen such fear, and this led to the beliefs, traditions, and principles of healthcare relating to pregnancy.

In Thai society, the existence of beliefs and principles of healthcare relating to pregnancy differs ranging from the period of pregnancy to birth giving, and these beliefs have been passed on from the old generation to the present one. However, nowadays despite the great influences of western medical science on the treating system and health care of Thai people, folk beliefs relating to pregnancy and the birth still pay essential roles for Thai people to adopt together with new medical science.

The study of folk beliefs relating to pregnancy is, therefore, necessary to gain the insight in the ancient people's thinking systems and intellect concerning health care, and to make use of these beliefs to create principles for social members in terms of prohibitions and practical guidelines for the balance and the existence of people in the society.

Folk beliefs relating to pregnancy

According to ancient Thai people, pregnancy is the results of the relationship between humans and stars in the zodiac. It is believed that a shooting star indicates the birth of a holy son to the spouses in the home where the shooting star appears. The son is from the spirit of the holy creature from heaven.

Based on the beliefs of Muslim people in southern Thailand, pregnancy is the will of Allah, who grants the birth. Pregnancy is, therefore, regarded as the prosperity to gain a Muslim infant who needs great care, and abortion is strongly prohibited. Principles and religious teaching should be followed strictly including praying, reading and fasting so that the baby perceives the religious principles and roles of a good Muslim since his existence in the mother's womb (Wiwatpanich & Sasiwongsaroj, 2007).

Moreover, the ancient Thais forecast the infant's gender by using omen or dream (Attagara, 1976). For example, the dream of getting jewelry, gold utensils or the sun's float into the room signifies the son, while the dream of makeup or giving making to his wife or the moon's float into the room signifies the daughter. Some text books suggest the consideration of the womb. The circular womb signifies the daughter, while the swollen womb signifies the son. Some suggest noticing the pregnant woman's foot. The red left foot signifies the daughter while the red right foot signifies the son. Some suggest noticing the navel look of the pregnant woman prior to the state of birth giving. If the skin around the navel is elastic and covers the hole of the navel, this signifies the daughter while the uprising naval signifies the son, etc.

According to some ancient Thais, it is believed that during the time of the baby's growth in his mother's womb called 'head revelation,' food consumed by the mother could immediately be absorbed in the middle of the baby's head. If the mother consumes hot spicy food, the baby will get the heat and be tolerant. However, if the mother consumes cold and useful food, this will be absorbed and will empower the baby. These beliefs lead to a variety of prohibition and practical guidelines concerning food consumption. Moreover, food consumption and health care during pregnancy lead to fate. That is if the mother pays great attention to the care of the baby in her womb, after birth when the child grows up, he will have moral obligation to look after the mother in her late life. On the other hand, if the mother does not pay attesting to the care of baby in her womb, the child will pay no attention to care his mother in her late life, which is the result of fate (Wiwatpanich & Sasiwongsaroj, 2007).

In terms of the symptoms of morning sickness, ancient Thais believe that these reflect the rebirth of some creatures.

For example, the mother's need to eat fish or fishy-smelling food is forecasted as the rebirth of creature from hell, while the need to eat sour and bitter thing is forecasted as the rebirth of creature from Himmapan forest, and the need to eat honey, sugar cane juice and sugar is forecasted as the rebirth of creature from heaven. Moreover, the need to eat fruit leads to the rebirth of the animal while the need to eat soil leads to the rebirth of Brahma and the need to eat hot and spicy food leads to the rebirth of the human being, etc.

Abortion is considered as the most dangerous state during pregnancy resulting directly in the baby and the pregnant woman. Based on the beliefs of the traditional local healers, abortion is caused by 5 main causes as follow: 1) the hyper sexual needs and sexual intercourse during pregnancy, 2) the consumption of food endangering the baby in the womb, 3) the pregnant woman's emotions of being fierce, angry and furious, 4) serious physical harassment, and 5) superstition or black magic. Based on these beliefs, it is necessary for the pregnant woman, the family and the community to set up practical guidelines to raise awareness and care to prevent such bad deeds in their society (Wiwatpanich & Sasiwongsaroj, 2007).

Health care during pregnancy

The purposes of health care during pregnancy include preventing bad deeds for the mothers and the babies so that the birth of the baby will be safe and sound. Healthcare in this stage is in the forms of prohibition and principle guidelines as follows:

1. Metal health care for pregnant women

Pregnant women extremely need morale and encouragement due to the potential stress and worry. This kind of stress easily deteriorates the pregnant women's morale comparing to common

people. Ancient Thai people, therefore, hold a ceremony to boost the pregnant women's morale for the purposes of creating encouragement and power during giving birth. This ceremony is, also, regarded as the life-prolonging rite for pregnant women who are about to face the risk of losing their lives.

In a society with the beliefs of superstitious power, health care has been related to mascots. For example, wearing special holy wristband around the pregnant woman's wrist or wearing holy necklace around her neck is believed to ward off evil spirits supposed to harm the pregnant woman (Phya Anuman Rajadhon, 1989). These kinds of holy mascots kept with the pregnant women will, hopefully, lessen the women's fear and worry.

In a society with the beliefs and fate in principles of Lord Buddha's teaching, the pregnant women are supposed to behave under the accepted norm of life focusing on making merit, purifying their minds, and abstaining from killing animals to collect merit and to prolong the baby's fate.

In addition, lots more cultural principles have been set up by the society to build up the pregnant women's spirit and her babies. For example, pregnant women are not allowed to see other women giving birth, to go to a funeral ceremony or to visit the seriously ill patients. That is because these will spoil the women's morale or hurt their souls. However, the pregnant women should take a chance to claw under the elephant's belly to lift up the morale and encouragement during the time of giving birth. It is also believed that this deed will enable the flow of birth-giving process, and the baby will be brought up happily.

2. Health care of pregnant women

Based on the ancient Thais' beliefs, boiled lotus could be eaten to lessen morning sickness symptom, and to help strengthening the baby's health as well as to prevent the mother's vomiting (Phya Anuman Rajadhon, 1989). The treatment of morning sickness includes the use of various recipes of herbs based on the symptom, such as medicine for blood tonic, breath tonic to adjust the balance of 4 immune systems in the body, laxative to prevent constipation and hemorrhoids. In case of the itch at the belly believed to be caused by the annoyance of baby's hair at the uterus and the belly flesh, apply the crushed turmeric at the area of itching to lessen such symptom. Moreover, food made from bon leaf is prohibited.

Moreover, it is believed that the pregnant women should work and use their strength as usual to give birth easily, and sleeping on one's side is recommended because lying supine enables the baby to hurt the womb. Too high or too low pillows will make the birth process difficult (Wiwatpanich & Sasiwongsaroj, 2007).

During pregnancy period, lots of prohibition concerning eating habit to prepare for the body and the expectation of smooth the birth process exist. For example, fruits, namely guava, bitter

eggplant and Tanee banana, should not be eaten because they will cause severe hurt during birth process. Eating sticky rice and egg may cause strong smell during the birth process while eating coconut juice will enable the smooth birth process. Moreover, taking a bath or apply water on the body at night is not allowed to prevent the accidental fall, and water may cause too cold body temperature affecting the baby in the womb.

3. Care of the baby in the womb.

Based on the belief that the baby in the womb should not be too big, the custom to control the pregnant women's eating behavior exists with the purpose of controlling the mother's weight and the size of the womb. The custom ranges from the control of food consumption and the food with meat. Women are some society is therefore, allowed to eat only rice with salt or with dried fish. The spicy and salty food causes the baby's eyes watery. Sipping hot spicy soup makes the baby bald head. Eating twin banana and fried sticky rice may result in having twin babies. In the past, giving birth to twin was regarded as a risky situation. It is, therefore, suggested eating only one banana (Wiwatpanich, 1997).

4. Antenatal care

Antenatal care will assist the pregnant women to gain the insight into the practical guidelines and the correct and suitable ways to take care of the baby in the womb. In the period of the near birth process, the pregnant women prefer to take a massage with local healers or ancient Thais called 'massage the womb' to lead the baby's head to the pelvis and to alleviate the stress in the womb. That is because in the near birth process the womb would be large and this will cause a backache. In case of aborting, the dead body of the baby is still in the womb. Local medicine healer will use local medicine including decaying Tanee banana, green winter melon, and local vegetable. Applying the crunched ingredients above on the womb for a while will make the dead body out of the womb. (Kaumara-Bhrtya, 1991).

The beliefs concerning postpartum

The state of postpartum is the period when the body of the woman is weak. The ancient Thais, therefore, create ritual ceremonies to save the woman from the superstitious power which may hurt the woman. For example, the rites include setting up the strap of cloth in front of the home, putting tamarind leaves and jujube leaves in the hole of the house to ward off evil spirit or asking the woman to wear a holy necklace with mascots to protect herself and prevent any harm.

Health care during postpartum state includes lots of steps. To gain acceptance, ancient Thais connect the process of healthcare with the beliefs of fate. That is because, in the postpartum state, the woman has to stay in a warm place, eat hot food, take a bath with hot water, and sleep in a hot place. In some regions, this is called 'staying in fate' or people who suffer torture (Kheawying

et al., 1991). Staying in fate can be compared to the time when men enter monkhood to serve the parents' obligation. To become a perfect mother, the woman needs to learn how to pass such difficulties as men do to recognize the parents' obligation. It is a kind of life cycle.

Moreover, Thai people believe in the balance of 4 elements, earth, water, air, and fire. The imbalance of these elements or the variations of these elements lead to a disease (Mulholland, 1971). In the woman's body in postpartum state, the imbalance of the four elements occurs because the birth process requires strength and the woman loses blood leading the state of weariness, the loss of blood, and the remains of bad blood in the body. This causes lots of illness in the future. It is, therefore, necessary to keep up and maintain the woman's health during the postpartum state to balance the four elements, and to clean the body by washing away the remaining blood, waste, and toxic so that the woman will become strong, fresh with beautiful look, and she will not become easily infected with diseases.

Health care during postpartum

In the past health care during postpartum is called 'stay heated'. That is because the term relates to the use of heat to warm the body in habilitation in postpartum. The care includes such activities as sleeping next to the fire, staying in a tent or heating the body with herbs, drinking warm herbal juice, using the brick which is fired redly, watered, and wrapped with cloth to warm the womb to lessen swollen, massaging, being seated on salt pot, and applying herbs on the skin, etc (Jamjan, Khantarakwong, Hongthong, & Jampates, 2014). Most women stay heated to rehabilitate their bodies to normal state and to heal wounds caused during birth process or to heal the stitching wounds, to lessen the inflammation, to clean the dirt caused during birth process and to help the uterus back to its origin. It is believed that those who do not stay heated will be unhealthy and be easily infected. Nowadays in some regions, thermostat bag or stay heated kits can be used to provide heat, and taking a bath with warm water added with herbs will help the flow of blood and lessen the swollen. The period of stay heated could last from 1 hour to 1 month depending on the woman's choice with the beliefs that the longer is the better skin with plenty of milk, and the better health without a backache. However, Thai people prefer 'stay heated' and 'leave the stay heated period' on the odd number day due to the belief that 'stay heated on the even number day leads to having babies in short interval of time while stay heated on the odd number day leads to having babies in longer interval of time. The rites on the day when the mother leaves the stay heated period include putting various food such as rice with fish, sour shrimp, and fish in a banana leaf bowl as a commission for mother of the stove used in stay heated period. The purpose of this rite is to pay the last respect to the mother of the stove before putting out a fire in the stove. After that, the mother would bathe herself with holy water to ward off evil spirit as the final step (Wiwatpanich & Sasiwongsaroj, 2007).

In terms of the prohibition such as not eating food like meat or preserved food, it is because of the beliefs concerning getting rid of the decaying substances out of the body and enriching the body after leaving the stay heated period. The food for body enrichment includes spicy food, namely

vegetable curry, banana flower curry in coconut milk, etc.

Conclusion

From the above, it can be concluded that various kinds of folk beliefs in Thai tradition concerning pregnancy relate to health care and the prevention of possible danger expected to harm the mother and the baby in her womb. Healthcare among ancient Thai in the period when technology and western medical science were not available was regarded as the care of health covering and connecting both human body and mind in the forms of various prohibitions and practical guidelines.

These beliefs reflect the philosophy or notions of treatment based on Thai ancient medicine healers focusing on the four elements; earth, water, air, and fire. Moreover, the beliefs show the characteristic of Thai society in terms of the ability to smoothly integrate traditional beliefs concerning spirit and superstition with the beliefs based on Buddhism. This kind of local intellect relating to local healthcare has been passed on as a part of a local way of life in terms of the integration of current western medical science with local medicine treatment or alternative medical care based on experience and human resources available in the society.

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RESEARCH NOTE

Distinguishing Delirium from Dementia

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Abstract

Distinguishing between delirium and dementia is essential for understanding the underlying mechanisms which direct a nurse to the best interventions. However, delirium and dementia are conditions that are at times difficult to differentiate even for experienced clinicians. While the similarities can make distinguishing between the two disorders challenging, there are distinct differences. Therefore, this article describes similarities and differences in the characteristics of each condition to assist clinicians in accurate detection and identification.

Keywords: *Acute Confusion, Delirium, Dementia, Geriatrics*

Introduction

Delirium and dementia are separate mental states that can be characterized by impaired memory and judgment, confusion, disorientation, decreased ability to communicate, impaired functioning, and variable degrees of paranoia and hallucinations (Neerland et al., 2017). Delirium is a involves "sudden cerebral deterioration" with alterations in mental functioning, primarily inattention, disturbance in awareness, and cognitive impairment. Delirium can be triggered by a number of events such as acute illness, injury, surgery, or drug intoxication (Mulkey, Roberson, Everhart, Hardin, 2018). In contrast, dementia is an acquired chronic impairment of executive function in one or more cognitive domains (e.g. memory, language, executive function, judgment, attention, perceptual motor function, and social skills) that typically develops slowly over time (Kolanowski, 2018). Vascular dementia may have a sudden onset but there are typical findings on radiographic imaging to support

this. While common, delirium and dementia are conditions that are, at times, difficult to differentiate even for experienced clinicians. However, while the similarities can make distinguishing between the two disorders challenging, there are distinct, critical differences that, once recognized, can assist the clinician in making an accurate diagnosis (Lippmann & Perugula 2016). This article provides clinicians a clear understanding of symptoms which differentiate the two.

Delirium

Delirium is common, causes significant distress and is associated with poor outcomes including increased risk of dementia, death, long-term care admission and length of hospital stay (Abou Saleh & Crome 2012). While the disorder can occur at any age, it is more common in older people (>64 years) (Mulkey et al., 2018). Older adults with three or more predisposing risk factors are at a 60% higher risk of developing delirium (Avelino-Silva, Campora, Curiati, & Jacob-Filho, 2017).

Dementia

Dementia results from an exogenous insult or an intrinsic process affecting cerebral neurochemistry and/or anatomic damage to the cortex, sub-cortex, or deeper structures (Lippmann & Perugula 2016). There are many risk factors believed to be associated with dementia such as aging, family history, genetic factors, vascular alterations chronic inflammation, obstructive sleep apnea, traumatic brain injury, pesticide exposure and low education (Viticchi et al., 2017; Elahi & Miller, 2017; Jutkowitz et al., 2017). While there are also many etiological factors associated with dementia, there is usually a progressive neuronal pathology likely beginning as much as twenty years before clinical diagnosis. Over time there is a progressive loss of synaptic terminals and accumulation of white matter pathology. Behavioral symptoms represent brain disconnectivity and quantifiable loss of cerebral "reserve." There is a strong correlation between neurodegenerative disease and cognitive decline. As a result of cognitive decline and changes in behavior, there is an impairment in performing activities of daily living and social abilities. Typically, the development of dementia occurs over a progressive period of time. Prior to cognitive impairment such as dementia is a significant independent risk factor for delirium (Gani et al., 2013). This loss of cerebral reserve increases the risk for delirium with the advent of physiological stress.

Sub-Syndromal Delirium (SSD)

Sub-syndromal delirium shares characteristic core domain symptoms with delirium, distinguishing each from non-delirium. Proposed SSD clinical criteria are as follows: (1) absence of full syndromal delirium, (2) acute or subacute onset, (3) disturbed attention, and (4) evidence of other cognitive and/or neuropsychiatric disturbances not better accounted for by another neuropsychiatric condition (Sepulveda et al., 2017). Severity is considered to be less severe with the sub-syndromal group. Milder disturbances of delirium's core domain symptoms are highly suggestive of SSD.

Although little research exists comparing symptom profiles, sub-syndromal Delirium (SSD) complicates the diagnosis of delirium and dementia (Sepulveda et al., 2017).

Dementia (DSD)

Coexistence between delirium and dementia is highly frequent. Compared with isolated dementia, having both delirium and dementia is associated with higher costs, more pronounced functional decline, and increased mortality. While approximately one-third of hospitalized patients develop delirium, the rate is dramatically higher at 89% in patients with pre-existing dementia (van Velthuijsen, Zwakhalen, Mulder, Verhey, & Kempen, 2017). Delirium superimposed on dementia is also associated with more than double the mortality risk compared to delirium or dementia alone.

Detecting delirium in someone who already has dementia can be more challenging, even for neuropsychologists. Careful interview of caregivers and other available clinical history becomes crucial in differentiating between them. Despite the difficulty, it is critical for appropriate treatment and a faster recovery. Delirium's core symptoms often overshadow the dementia phenotype when comorbid. While not exclusive, several behaviors increase the likelihood of DSD (Kolanowski et al. 2016). These include increased agitation, unusually resistive to care, falls, catastrophic reactions, decreased communication, inattention, fluctuating alertness.

Comparison

Onset

The occurrence of delirium depends on an intricate relationship between predisposing (i.e., advanced age, preexisting dementia or cognitive impairment, functional dependence, and visual impairment) and precipitating factors (i.e., acute/critical illness, trauma, surgery) (Avelino-Silva et al. 2017). Delirium is an acute confusional state with a sudden onset associated with an acute change in condition (Mulkey et al., 2018). In delirium, baseline function may rapidly deteriorate to a confusional state with impaired ADLs. In contrast, dementia typically begins slowly and is gradually noticed over time. Therefore, getting a report of usual or baseline functioning is expected for an individual with dementia. Some key factors include a past medical history of dementia, concerns related to short-term memory, challenges with completing tasks and activities, and any physical or psychological impairments.

Underlying Mechanism

Delirium is usually triggered by a specific illness, such as a urinary tract infection, pneumonia, dehydration, illicit drug use, or withdrawal from drugs or alcohol (Mulkey et al., 2018). Medication interactions or abrupt withdrawal can also contribute. Conversely, the cause of dementia

is typically a disease such as Alzheimer's, vascular dementia, Lewy body dementia, frontotemporal dementia or a related disorder (Blanc & Verny 2017; Young, Lavakumar, Tampi, S., Balachandran, & Tampi, R. 2018).

Alzheimer's disease (AD) is a chronic neurodegenerative disease that slowly worsens over time. It is the cause of 60–70% of cases of dementia (Alafuzoff 2018). The most common early symptom is short-term memory loss. As the disease advances, symptoms can include problems with language, disorientation (including getting lost), mood swings, loss of motivation, not managing self-care and behavioral issues. As the disease progresses the individual often withdraws from family and society. Gradually, bodily functions are lost, ultimately leading to death.

Vascular dementia also known as multi-infarct dementia (MID), is dementia caused by problems in the supply of blood to the brain, typically preceded by years of hypertension and then a series of minor strokes, leading to worsening cognitive decline that occurs step by step (Alafuzoff 2018). It is a syndrome consisting of a complex interaction between cerebrovascular disease and risk factors that lead to changes in brain structures due to strokes and lesions, resulting changes in cognition. Another form of dementias Lewy bodies, the third most common type of progressive dementia after vascular dementia. In this condition, protein deposits, called Lewy bodies, develop in nerve cells in the brain regions involved in thinking, memory, and movement (motor control). A core feature is REM behavior sleep (RBD), in which individuals lose normal muscle paralysis during REM sleep, and often act out their dreams (Young et al., 2018). The fourth form of dementia is frontotemporal dementia (FTD). This is a group of related conditions that are the result of progressive degeneration of the temporal and frontal lobes of the brain. Due to the similarities, frontotemporal dementias (FTDs) and Alzheimer's disease (AD) are often misdiagnosed. As the condition's progressive degeneration evolves, there is a gradual decline in decision-making ability, behavioral control, emotions and language (Alafuzoff, 2016).

Duration of Conditions

Delirium is an acute condition that can last for a couple of days to even a couple of months. Delirium is almost always temporary if the cause is identified and treated. However, delirium can cause long-term cognitive impairment (Mulkey et al., 2018). Dementia, on the other hand, is generally a chronic, progressive, incurable disease. Some reversible causes with similar symptoms are vitamin B12 deficiency, normal pressure hydrocephalus, and thyroid dysfunction (Osimani, Berger, Friedman, Porat-Katz, & Abarbanel, 2005).

Communication Abilities

In delirium, memory functioning is usually less affected but the ability to focus and maintain attention to something or someone is very poor (Adamis et al., 2016). Delirium may significantly and uncharacteristically impair someone's ability to speak coherently or appropriately. In dementia, the

level of alertness is typically not affected until the later stages, whereas memory is significantly affected throughout the progression of the disease. Dementia leads to a gradual deterioration in the ability to express oneself as the disease progresses. People with dementia may have difficulty finding the right words (Richardson et al., 2017).

Attention Span and Memory

Posner (1967) examined aspects of the role of memory in information processing. As a result of his work, it was determined that information processing is separate from short-term memory and tests of sustained attention are able to discriminate delirium from dementia. With delirium, there are impairments in the attention and level of consciousness cognitive domains. These domains are usually not impacted with dementia unless there is also concurrent or developing delirium, further supporting the differences that discriminate delirium from dementia and other neuropsychiatric syndromes.

Activity/Mobility Level

People with delirium are often either overly active (hyper and restless) or under-active (lethargic and less responsive) compared to usual functioning (Volland, Fisher, & Drexler 2015). Hyperactive delirium, manifests itself as increased psychomotor activity, hyper-alertness, agitation, irritability, restlessness, combativeness, distractibility, delusions, and hallucinations. Conversely, the hypoactive subtype, frequently called “quiet delirium” manifests itself as decreased psychomotor activity, lethargy, inattention, slow responses to questions, and looks similar to depression and sedation (Bush et al., 2017; Bui et al., 2017). Dementia typically does not affect a person's activity level until the later stages. The prevalence rate of physical aggression in patients with dementia is approximately 18% and has been associated with dyspraxia, difficulty completing motor tasks. Poorer baseline functional status has been associated with physical aggression, and poorer functional status increases the transition probability of physical aggression (Kolanowski et al., 2017).

Approaches to Treatment

Delirium requires immediate treatment. Since it is usually caused by an illness, infection or trauma, when the underlying condition resolves, the symptoms of delirium will improve. There are currently a handful of medications approved by the FDA for Alzheimer's disease, the most common type of dementia (Addesi et al., 2018).

These medications include anticholinesterase inhibitors (i.e. Donepezil, Rivastigmine, and Galantamine) and disease-modifiers (i.e. memantine). While these medications do not cure dementia, it is believed they may slow the progression of symptoms, including memory loss, poor judgment, and behavioral changes (Naharci, 2018). However, some evidence has suggested these medications may not work, and in some cases of FTD, may make the dementia worse.

Consequences of Misdiagnosis

Patients who develop delirium are more likely to suffer from hospital-associated complications ($p< 0.001$), have higher in hospital ($p=0.002$) and 30-day mortality rates ($p=0.008$), to need repeat interventions, and longer length of hospital stay ($p=0.007$) increased need for acute rehabilitation, skilled nursing and long-term acute care after discharge compared to those who did not develop delirium (Radinovic et al., 2015; Tarazona-Santabalbina et al., 2015). Because of delays in identification, most older adults will still have delirium at the point of hospital discharge, posing an ongoing challenge regarding the need for facility-based post-acute care (Mulkey, Roberson, Everhart, & Hardin, 2018). When patients with prior cognitive impairment develop delirium there is an increase in mobility impairments, highlighting the importance of delirium preventions and cognitive therapies. These interventions are thought to improve the functional recovery and reduce one-year post-discharge mortality.

There is a negative correlation between length of delirium and scores on Katz Index of Independence in Activities of Daily Living, a measure of a patient's functional ability when attempting to complete activities such as bathing, eating, dressing, and home maintenance (Szlejf et al. 2012). This has translated to an increased need for long-term care after hospital discharge. Gruber-Baldini et al. (2017) conducted a prospective cohort study of 682 older patients with no preexisting cognitive impairment at the time of admission who subsequently developed delirium to evaluate the incidence of persistent or sustained cognitive impairment based on a Mini Mental Status Exam (MMSE) and a decline in ability to perform activities of daily living (ADL) two years after hospital discharge. They found the presence of delirium resulted in fewer patients who were able to complete ADLs and walk 10 feet, and a higher incidence of depression and cognitive impairment two years after survey. Edelstein et al. (2004) also found community-dwelling patients who developed delirium had an increased one-year mortality rate, functional decline, and decline in independence after hospitalization.

There is a positive correlation between mortality rate and length of delirium episode. Researchers supports as much as an 11% increase in mortality for each 48 hours of active delirium and as many as 14% of patients will die within a month and 22% at six months (Avelino-Silva et al., 2018; Adamis et al., 2017). These rates are twice the rate of comparable medical patients who do not develop delirium (Avelino-Silva et al., 2018; Adamis et al., 2017).

Recommendations for Improving Recognition

Delirium screening tools identify the presence or absence of delirium, with some providing information regarding severity. All screening tools are not equal. Limitations include a lack of continuous monitoring, being retrospective, validated in a limited patient population or environment and subjectivity. Caution should be exercised when selecting a tool for delirium assessment especially with patients who have dementia or other chronic neurological impairment. Some of the

tools do not differentiate delirium from dementia, which is important for the older adult. For example, several studies have determined the accuracy of the CAM-ICU was lower in patients with mild delirium (30%), baseline mild cognitive impairment (33%), and dementia (62%) as opposed to patients without cognitive impairments (van Velthuijsen et al., 2016). The following tools help differentiate delirium from dementia: Cognitive Performance Scale (CPS2), International Resident Assessment Instrument-Acute Care (Inter RAI-AC), DRS-R98-K. Although not specifically for delirium, the CPS2 appears to be a reliable screening tool comparable to the Mini-Mental Status Exam (MMSE) for assessing cognitive impairment in acutely ill older hospitalized patients (Travers, Byrne, Pachana, Klein, & Gray, 2013). The RAI AC is also validated for assessing delirium and dementia in acutely ill older adults (Travers et al., 2013). The RAI AC offers the advantage of being able to accurately screen for both dementia and delirium without the need to use additional assessments, thus increasing assessment efficiency.

Nurses need accurate information and assessment tools that are efficient. When determining the most appropriate assessment tool, several other considerations should include time to complete the tool, instrument validation in the population to be screened (i.e. sensitivity and specificity), tool performance in the clinical environment, and limitations of the instrument, such as differentiating dementia or traumatic brain injury from delirium (De & Wand 2015). Additionally, it should also be noted that many of the screening tools (i.e. CAM-ICU) require initial and ongoing user training to maintain reliability in screening accuracy (Malik, Harlan, & Cobb 2016).

Table 1. Stressors and Interventions

Stressor	Intervention
Unmet needs	Promote rest and sleep at night Address fear, hunger and toileting needs
Acute Medical Condition	Consider possibility of pain, urinary tract infection or medication interaction/side effects
Sensory Deficits	Encourage use of visual and hearing aids Provide simple activity such as folding washcloths, busy vests/drapes with buttons and zippers, etc.
Caregiver stress, depression, burden	Encourage rest and night time sleep away from the hospital, caring for one's personal needs, stress reduction techniques, time for self
Education	Educate significant others, visitors and staff that behavior is not intentional but a result of cognitive impairment
Communication	Keep it simple-do not over explain or discuss what will happen in the future Use a calm voice Avoid open ended questions Limit the number or options or choices Don't argue or disagree, simply change the subject or focus of conversation

Over/under stimulating environment	Limit the number of people Reduce noise by turning off the TV and adjusting alarms Remove unused or unneeded equipment, Bring patient in chair to nurse's station or hallway for visibility
Safety	Remove sharp or potentially harming objects, use bed and chair exit alarms, limit restraint use, cover IVs and lines, use a nightlight, implement falls precautions
Lack of Activity	Provide appropriate available activities, encourage ambulation if permitted, relax rules as able unless safety is a concern
Lack of structure or routine	Maintain a routine or schedule such as bathing before or after breakfast, meals ambulation, and bedtime, Limit number or room/unit changes, allow time and do not rush activities

Managing and Preventing Agitation

There are multiple potential reasons why patients with cognitive impairments, including delirium and dementia, exhibit agitation. Research has suggested patients' agitation may be the result from lack of understanding or unmet needs with difficulty expressing their needs (Livingston et al., 2014). Stress may be caused by changes in routine, too many competing or misleading stimuli, lack of stimuli, physical and social environmental changes, and demands that exceed functional ability. Clinicians should stop considering agitation as an entity but instead as a symptom of lack of understanding or unmet needs that the person with cognitive impairment is unable to explain or understand. In line with the need-driven, dementia-compromised behavior theory of Algase et al., this may be physical discomfort or need for stimulation, emotional comfort or communication. A qualitative synthesis of 63 research studies on the effects of environmental interventions provided evidence for its role in preventing and reducing behavioral symptoms, such as agitation (Pink, O'Brien, Robinson, Longson, 2018). Although 90% of the studies reviewed showed positive effects, most studies did not use randomized trials. These include tackling factors in the person's environment including (See Table 1):

- Being overstimulated (i.e. excess noise, people, or presence of unfamiliar items) or under stimulated (i.e. lack of anything of interest to look at)
- Safety problems (i.e. falls risk)
- Lack of activity and structure (i.e. getting out of bed, ambulating and activities that match interests and capabilities)
- Lack of established routines (i.e. frequent changes in the time, location, or sequence of daily activities).

Summary and Implications

Differentiating between delirium and dementia can be a challenge for all providers. Accurate identification is a product of knowing both the risk factors and events that can precipitate an episode. Close monitoring for a decline in cognitive function is important for the patient's overall quality of life, reducing unnecessary hospital length of stay, and preventing potentially avoidable health care costs. Patients with dementia are at higher risk of delirium.

Despite challenges, the proactive diagnosis of dementia and delirium will likely improve patient outcomes. Nurses need to remain diligent in their nursing assessment, maintaining the rigor of the nursing process when conducting cognitive assessments. It is equally important to identify the behaviors as delirious symptoms while using behavioral examples in documentation. While delirium and dementia present differently, patient-centered care involves family education to support active involvement in the patient's hospital and post-discharge care. Because cognitive impairment is common in the acute care setting and substantially impacts long-term outcomes, there is a pressing need for interdisciplinary care to alter a trajectory of decline and more research to improve diagnostics and management, regardless of the diagnosis.

Key Points

- Distinguishing between delirium and dementia is important for understanding the underlying mechanisms which direct a nurse to the best interventions.
- There are distinct differences that, once recognized, can assist the clinician in making an accurate diagnosis.
- Nurses need to remain diligent when conducting cognitive assessments.
- It is important to identify the behaviors as delirious symptoms while using behavioral examples in documentation.

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"First steps of Anafeliza" depicts the inception of the mother's young born into an unfamiliar world; as nurtured by her mother, the young gains a sense of peace and contentment as the child relies on the affectionate and loving care only a mother could bring. The piece presents a portrayal of a deeply caring mother, preparing her child to cope up in a world full of uncertainties. She is likened to health and caring professionals on their roles of nurturing and guiding persons toward wellness, for them to continue to live and cope up with the challenges of society where they belong.