IJAMS
INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES
Volume V, Issue 1 January 2025, eISSN: 2799-0664

Self-Directed Learning Readiness Among Nursing Students and its Correlates

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Abstract — Nursing students must possess self-directed learning (SDL) skills to become proactive lifelong learners who thrive despite the uncertainties of the future. Before assigning them SDL tasks, nurse educators must first ascertain the nursing students' readiness for SDL (SDLR) and identify factors that influence this. In this descriptive-correlational study, 323 nursing students across 4 nursing schools in Zamboanga del Norte were surveyed to determine their SDLR and analyze its relationship with demographic factors and perceived family support. The typical nursing student was female, in the first two years of college, came from a low- to middle-income family, and received high family support. Majority were found to have adequate readiness for SDL, with the highest mean score in desire for learning (51.98 ± 4.58), followed by self-control (59.00 ± 6.19), and the least in self-management (48.34 ± 5.76) which are all above the thresholds. There was a significant negative correlation between the students' year level and their self-management (r=-0.242, p=0.000) and self-control (r=-.162, p=0.004). A significant positive correlation existed between the students' perceived family support and their self-management (r=0.288, p=.000), desire for learning (r=0.189, p=0.001), and self-control (r=.174, p=0.002). Gender and monthly family income were not significantly correlated with SDLR. Thus, students in higher academic years tend to have lower self-management and self-control, and those who feel supported by their families tend to have better self-directed learning readiness. Nurse educators must consider providing students with more opportunities for SDL, and encouraging family involvement in the students' academic journey.

Keywords — Self-Directed Learning Readiness, Desire For Learning, Self-Control, Self-Management, Family Support, Nursing Students, Nursing Education

I. Introduction

Self-directed learning (SDL) is a process in which a person "takes the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Knowles, 1975, as cited in Lee et al., 2020). The Commission on Higher Education (CHED) emphasized the need for entry-level nurse practitioners to engage in self-directed lifelong learning and possess the necessary self-directed learning skills (CHED, 2017). Evidence have shown that SDL predicted nursing competency, fostered critical thinking, developed professional nursing values, and promoted lifelong learning (Yang & Jiang, 2014; Obied & Abo Agad, 2017; Lee et al., 2020; Tekkol & Demirel, 2018). With the constantly evolving knowledge, SDL has become a necessity in today's world (Cziesielski,

2020). To prepare nursing students for the world of work and prevent "future shock", it is imperative for nursing educators to provide opportunities for their students to engage in SDLs. However, they must first ascertain their students' readiness for SDL (SDLR) and develop an in-depth understanding of factors that affect their readiness before they can assign them SDL tasks.

The current outcomes-based BS Nursing (BSN) curriculum outlined in CMO No. 15, series of 2017 recommends the integration of SDL in the BSN program particularly in the implementation of related learning experiences (RLE) (CHED, 2017). Several learner-centered teaching-learning strategies have been proposed to ensure that learning outcomes are achieved in the outcomes-based curriculum. One learning-centered strategy adopted by higher education institutions (HEIs) during the pandemic was flexible learning (CHED, 2020) which provided students with options in terms of time and place of learning, instructional approaches, learning resources and activities, and support mechanisms (Huang et al., 2020). Since it required students to take responsibility for their own learning, they must have adequate self-directed learning skills especially in terms of self-regulation, setting goals, and self-monitoring of learning (Huang et al., 2020).

Many studies exploring the self-directed learning readiness (SDLR) of nursing students have been conducted since the mid-1980s (Slater & Cusick, 2017). Instruments such as Fisher et al.'s (2001) Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE) provide an objective measure of the nursing students' SDLR in three domains: desire for learning, self-management of learning, and self-control on learning (Alradini, 2021). Investigations on the influence of learners' factors such as gender, academic year level, and monthly family income on their SDLR have been conducted with contrasting results. In addition, family support had been found to influence their readiness for SDL (Alotaibi, 2016).

To assist nursing students in developing these essential self-directed learning skills and competence in lifelong learning, nursing educators must first determine their self-directed learning readiness (SDLR). Unfortunately, there is a dearth of studies on the SDLR of nursing students in the Philippines, particularly in Zamboanga del Norte where four nursing schools are located. This study addressed this gap and sought to determine the nursing students' readiness for self-directed learning and how factors such as gender, academic year level, family income, and family support influenced their level of readiness. Nursing educators in collaboration with the guidance office of their school can utilize the findings to design activities that will help their students to develop and enhance their self-directed learning skills. They can also recalibrate their instructional design to consider their students' self-directed learning capabilities to better prepare them for the world of work.

Significance of the Study

This study benefits nurse educators since the results could serve as basis for designing teaching-learning activities that promote and enhance the students' self-directed learning skills.

This would also help the nursing program administration in planning and implementing intervention programs that address concerns regarding family support, economic status, gender, and academic year level. Furthermore, the results could provide nursing students with insights on their skills and capabilities for self-directedness. Their families can also be enlightened on the importance of offering their unwavering encouragement and support to their children who are engaging in self-directed learning projects. Lastly, this would also benefit future researchers who intend to validate the findings of this study in similar or different parameters.

Objectives

This study primarily aimed to determine the self-directed learning readiness among nursing students in private and government-run higher education institutions in Zamboanga del Norte. Specifically, the study sought to answer the following questions:

1. What is the demographic profile of the nursing students in terms of gender, academic year level, and monthly family income?
2. What is the nursing students' level of perceived family support?
3. What is the nursing students' level of self-directed learning readiness in terms of self-management, desire for learning, and self-control?
4. Is there a significant relationship between the nursing students' demographic profile and perceived family support and their self-directed learning readiness?

This hypothesis will be tested in this study:

H_0: There is no significant relationship between the nursing students' demographic profile, perceived family support and their self-directed learning readiness.

Literature Review

Self-Directed Learning (SDL). Learning is a lifelong process. Knowledge quickly becomes obsolete, thus, to prevent "future shock," an individual must possess the skill to go on acquiring new knowledge for the rest of his or her life (Knowles et al., 2005, as cited in Cziesielski, 2020). Higher education institutions (HEIs), where students are prepared for the world of work, have a tremendous responsibility in ensuring that their graduates are ready for the future. Ehlers (2020) agreed with Knowles that it was no longer realistic for HEIs to merely transfer what is known. Instead, HEIs, Ehlers contended, must focus on developing future skills that require ingenious forms of learning and teaching. With the constantly evolving knowledge, self-directed learning has become a necessity in today's world (Cziesielski, 2020).

Self-directed learning is based on the adult learning principles embodied in the concept of andragogy elaborated by Knowles (1975). Knowles defined self-directed learning (SDL) as a

"process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Laine et al., 2021). However, this concept on adult learning, or andragogy, should not be misinterpreted as being applicable only to teaching adults and that children should be exclusively taught pedagogically, or taught as children. Knowles clarified that even adults prefer the teacher-directed pedagogical approach when they want to learn unfamiliar concepts while youths can opt to be self-directed when they already have sufficient experience in undertaking learning activities in a particular concept (Cziesielski, 2020).

The capability for SDL develops as a person matures. Self-directed learning exists along a continuum and is innate in all individuals in varying degrees (Laine et al., 2021) and, therefore, can occur in a wide variety of situations and can take many different formats (George et al., 2021). Knowles et al. (2005) theorized that adolescents already have the propensity to use their experiences in learning and organize their learning around life problems. Given the unique individual traits of a learner, there is no consensus as to the age when self-directedness fully emerges. Thus, not all learners in a particular academic year level may have the same set of SDL skills. In fact, some of them may not yet be capable of self-direction (O'Shea, 2003, as cited in Hall, 2018).

Literature sometimes interchange SDL with "independent learning," "self-instruction," and "autonomous learning" (Knowles, 1975). Renowned psychologists Maslow and Rogers believed that it is unhealthy for a person to be dependent on another person to learn and anyone who aims for self-actualization chooses to be independent (Knowles et al., 2005). Knowles et al. (2005) clarified that self-directed learners become resistant to learning when they feel that others are imposing their wills on them, a situation quite common in authoritarian, teacher-directed learning approaches. Unlike children, mature learners bring with them a vast amount of experience when they engage in a learning activity. These experiences become rich learning resources that they can share with their peers. Therefore, SDL encourages collaboration with their peers, as well as their teachers, and other resource persons (Knowles, 1975) contrary to the notion of "independent learning" that the "self" in the term implies.

Many studies have been conducted that sought to determine the benefits of SDL. Yang and Jiang (2014) concluded that SDL is a predictor of nursing competency. They also found it necessary to foster critical thinking and research aptitudes among nursing students, both essential skills in lifelong learning. Obied and Abo Agad (2017) concurred that SDL enhanced the nursing students' critical thinking skills. However, teaching the process of SDL may not be necessary since it does not result in an improved readiness for self-directed learning.

Self-directed learning also had a positive effect on professional nursing values and can be used to reinforce these values in the students (Lee et al., 2020). Moreover, they concluded that teacher-directed learning is no longer effective for this generation of students and that self-directed

learning was effective in improving the knowledge, skills, and attitudes in professional health care education (Murad et al., 2010, as cited in Lee et al, 2020).

Nursing education benefits from adult education because it deals with life situations. The new curriculum for the BS nursing program described in CHED Memorandum Order (CMO) No. 15 Series of 2017 expects graduates who can engage in self-directed lifelong learning for them to be updated with the latest developments in nursing and health care in the Philippines and abroad. This new curriculum places the responsibility for lifelong learning, personal development, and maintenance of competence on the learner (CHED, 2017). On the other hand, higher education institutions must provide them with sufficient learning opportunities to meet this objective. The question is, are the current nursing students well-equipped for self-directed learning? Popkess and McDaniel (2011) found out that nursing students perceived themselves as less engaged in active and collaborative learning despite being exposed to more rigorous curricula than their peers in education and other health professions. The major reason for this is that most nursing instructors continue to use traditional, teacher-centered teaching strategies which do not promote active and collaborative learning.

The academic rigor in nursing is not only limited to the classroom setting. The clinical rotations are equally as stressful. A study in a government school in the Philippines showed that assignments and workload were the most common stressors among nursing students (Labrague, 2014). Nursing students react to stress differently. Some students have low resilience and high burnout while others have high resilience and low burnout (Ching et al., 2020). Students with low resilience and high burnout eventually lose engagement with the nursing profession by merely conforming to external demands and focusing on their problems. On the other hand, high resilience and low burnout students reported satisfaction with the nursing profession and were highly self-aware by conforming with self-directed principles and focusing on coping.

While the BSN curriculum emphasized the importance of self-directed learning to achieve lifelong learning skills, there were still many nursing students who are aversive to SDL. Students who preferred highly structured learning environments where the instructor told them what to do felt anxious and vulnerable when they were given opportunities for SDL (Pryce-Miller & Serrant, 2019). In the Philippines, Ramos (2015) and Barcelo (2016) found that teacher-directed activities or the authoritarian approach did not appeal to students. San Jose et al. (2019) reported that students found the lecture method boring, and affected their engagement as they merely became passive recipients of information.

Self-Directed Learning Readiness (SDLR). Self-directed learning readiness (SDLR) is defined as the possession of attitudes, abilities, and personality characteristics that an individual needs to be self-directed in learning (Wiley, 1983, as cited in Slater & Cusick, 2017). Three assumptions on SDLR were proposed by Candy (1991, as cited in Kumar et al., 2021) and Guglielmino (1989, as cited in Fisher et al, 2001). First, SDLR exists along a continuum and is present among adults in varying degrees. Second, self-direction competencies can be developed.

Third, SDL ability in one situation or context can be generalized to other settings. However, Fisher (2001, as cited in Alfaifi, 2016) admonished readers about the last assumption. It does not mean that adults who demonstrate high SDLR levels in one subject will also demonstrate the same SDLR level in another new or unfamiliar subject. From a constructivist point of view, success in self-directed learning largely requires prior knowledge and understanding of a subject that will serve as their launch pad for acquiring new knowledge. Furthermore, Knowles et al. (2005) emphasized that the andragogical model, which is characterized by self-directed learning, is not an ideology rather it is a transactional model that speaks to the uniqueness of each learner and learning situation. It is therefore important to measure readiness for self-directed learning to determine the baseline for a particular learning context.

Several studies conducted on the self-directed learning readiness (SDLR) of nursing students from the Middle East revealed low-level readiness for this population (Alharbi, 2018; Phillips et al., 2015; Alkorashy & Assi, 2017; Obied & Abo Agad, 2017). The respondents attributed their low scores to their time management skills, moods, values, attitudes, and culture. Another reason for low-level readiness scores was the lack of self-confidence and trust in their abilities which resulted from a heavy reliance on teacher-directed learning activities. However, when the SDL method was used, their SDLR scores and critical thinking improved (Obied & Abo Agad, 2017). This reinforced the proposition that teachers need to stimulate their students to be self-directed learners.

Several studies on SDLR among nursing students across cultures showed higher SDLR scores (Yang & Jiang, 2014; Tekkol & Demirel, 2018; Rascon-Hernan et al., 2019; Ors, 2018; Ertug & Faydali, 2018; Samarasooriya et al., 2019; Singh & Paudel, 2020). Pre-registration nursing students in China who had their clinical rotations for more than eight months scored intermediate to high-level SDLR scores (Yang & Jiang, 2014) but had low scores in critical thinking and research aptitude. University students in Turkey also had high SDL skills (Ors, 2018; Ertug & Faydali, 2018; Tekkol & Demirel, 2018) with many saying they were open to learning but had problems with the systematic monitoring of the learning process (Tekkol & Demirel, 2018). In another study in Turkey, nursing and midwifery students had relatively high self-directed learning readiness which was largely due to the Turkish educational policy that emphasized student-centered learning approaches (Ors, 2018). Health science undergraduates in Spain, Sri Lanka, and Nepal, countries with different cultures, also had high mean SDLR scores (Rascon-Hernan et al., 2019; Samarasooriya et al., 2019; Singh & Paudel, 2020).

Desire for Learning. Desire for learning is one of the components of the Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE) (Fisher et al., 2001). It is used to determine the students' motivation for learning and their ability to reflect on this motivation (Yang & Jiang, 2014) including openness to challenges and new ideas (Phillips et al., 2015). Moreover, this enables the student to exhaust all possible resources to ensure continuity of learning and perform self-regulation and monitoring to achieve learning outcomes. Studies by Phillips et al.

(2015), Chakkaravarthy et al. (2020), Kao et al. (2013), Ors (2018), and Samarasooriya et al. (2019) reported high scores in desire for learning among their respondents.

However, Yang and Jiang (2014) found the desire for learning less important in developing nursing competency than self-control and self-management of learning, with the latter two being already enough to acquire basic nursing knowledge, skills, and behaviors. In Australia, Phillips et al.'s (2015) study on non-traditional nursing cohorts, or those who entered nursing school with prior higher education experience, found that those who already have postgraduate qualifications had lower desire for learning scores than bachelor's degree holders. This could be attributed to the difference in motivations between post-graduate and undergraduate students. Post-graduate students were more likely to be motivated by "cognitive interest" while undergraduate students were motivated by "communication improvement" (Francois, 2014, as cited in Phillips et al., 2015). Singh and Paudel (2020) also reported low scores in desire for learning among Nepalese nursing students despite having high levels of readiness for self-directed learning. The authors did not elaborate the reason for these low scores, though.

Self-Management of Learning. Another component of the SDLRSNE is self-management of learning (Fisher et al., 2001, as cited in Alradini, 2021). It is the willingness to take responsibility for decisions, and for reflective and critical decision-making (Rascon-Hernan et al., 2019). It involves self-discipline in terms of time management, study patterns, problem-solving, and seeking out and utilizing additional resources (Phillips et al., 2015). Self-management and years of experience had a direct relationship (Chakkaravarthy et al., 2020) which supported the notion that work experience is a rich source of learning management skills (Knowles et al., 2005). Most of the studies conducted on nursing students revealed low scores in the self-management subscale (Phillips et al., 2015; Ors, 2018; Chakkaravarthy et al., 2020) which signified their lack of experience in managing their own learning. This justified the necessity of helping students develop their self-management skills (Ors, 2018). On the contrary, Kao et al. (2013) reported high scores in this subscale among 20- to 21-year-old nursing students.

Self-Control. The third and final component of the SDLRSNE is self-control of learning (Fisher et al., 2001). It includes the ability to self-evaluate, or to critically analyze performance according to self-defined criteria, set own learning goals, responsibility for own decisions and actions, and overall control of own life (Rascon-Hernan et al., 2019; Fisher et al., 2001). Studies conducted in Saudi, Nepal, India, Taiwan, and Brunei Darussalam on the self-directed learning readiness of nursing students and professionals revealed high scores for self-control compared to the other components (Alkorashy & Assi, 2017; Singh & Paudel, 2020; Kaur et al. 2020; Kao et al., 2013; Chakkaravarty et al., 2020). On the other hand, Ors (2018) and Tekkol and Demirel (2018) reported that sampled nursing students in Turkey had low scores in self-control while scoring high in other domains. However, when compared as to academic year level, those in the senior year fared better in self-control than those in the first year. This indicated that life experiences do play a part in the development of self-control skills (Ors, 2018). To help improve

students' self-control skills, nurse educators could use reflective journals, learning performance evaluation scales, and upper-cognitive learning strategies (Tekkol & Demirel, 2018).

Gender and SDLR. The influence of gender on the nursing students' readiness for self-directed learning was investigated in this study due to the conflicting findings of other studies done in this regard with only a few studies yielding significant results (Slater & Cusick, 2017). Manarang and Cuevas (2017) and Samarasooriya et al. (2019) did not find any significant relationship between gender and SDLR. However, Lee et al. (2020) found that male nursing students in South Korea were more likely to have higher levels of self-directed learning than female nursing students. On the other hand, Tekkol and Demirel (2018) and Ors (2018) reported that female students and professionals had higher SDL skills scores than their male counterparts. Previous studies cited in their findings suggested that this could be because females generally had higher cognitive awareness and motivation levels, more effective time management, and lifelong tendencies than males (Tekkol & Demirel, 2018).

Monthly Family Income and SDLR. Another demographic factor investigated in this study is family monthly income. Tough (1979, as cited in Knowles, 2005) considered inaccessibility of opportunities or resources as a motivation blocker. Lack of access to opportunities or resources could be influenced by socioeconomic status (Anderton, 2017). In a study investigating the factors that contributed to academic success in first year allied health students in an Australian university, Anderton (2017) deduced that first-year students who were from more educated and affluent families were more likely to persist with their chosen degrees. Surprisingly, those students entering university from government secondary schools, who mostly came from lower income families, performed significantly better academically (Li & Dockerty, 2014, as cited in Anderton, 2017). When it came to self-directed learning readiness, studies by Ors (2018) and Tekkol and Demirel (2018) showed no association between monthly income and SDLR.

Academic Year Level and SDLR. Another variable investigated in this study is academic year level. Several studies have confirmed the direct association of the nursing students' year level with their SDLR (Alkorashy & Assi, 2017; Ors, 2018; Alexander, 2010, as cited in Phillips et al., 2015; Slater & Cusick, 2017; Lee & Kim, 2016). This confirmed the effect of the maturation process (Alkorashy & Assi, 2017) and the value that experience, particularly clinical experience, had in the development of self-directed learning skills (Ors, 2018). As nursing students progressed through the academic years, they gain experience in successful learning strategies that lead to the accomplishment of learning outcomes. Alkorashy and Assi (2017) explained these experiences that nursing students go through in the four-year baccalaureate nursing program. In the first academic year, nursing students are oriented on their roles and responsibilities in the learning process. It is during this time that teachers should be more patient and understanding since many of the nursing students struggle to beat deadlines as they try to learn pacing their studies to avoid anxiety, stress, and failure (Alexander, 2010, as cited in Phillips et al., 2015). By the second and

third academic years, students have already become fully aware of their learning styles and approaches. It is also during this time that the students have already started gaining clinical experience by immersing themselves in clinical exposures. It is no surprise that the SDLR levels have also increased around this time. By their senior and final year, they have already gained enough experience for them to share their opinions, make decisions, and work independently on various clinical situations (Alkorashy & Assi, 2017; Ors, 2018). On the contrary, the results of a study by Tekkol and Demirel (2017) revealed that the academic year level did not significantly affect the development of self-directed learning skills. The researchers rationalized that self-directed learning is not completely dependent on the academic progression characteristic of formal education but on the students' personal characteristics.

Family Support. Family support is another factor that was investigated in this study. A study by Aloitabi (2016) revealed that a supportive learning environment could affect the nursing students' level of readiness for SDL and their academic performance. Furthermore, higher education institutions must create a nurturing learning environment that meets their students' learning needs to succeed in promoting SDL skills. Learners were not stimulated to learn in a rigid, uncompromising, authoritative learning environment. Instead, they learned best in comfortable, nonthreatening settings (Knowles et al., 2005). When teachers enforced what they want in the learning process without considering the learners' need for self-direction, this could cause the learners to feel tension, resentment, and rebellion which were the very things that Rogers and Maslow pointed out as inhibitors of learning (Knowles et al., 2005).

Many studies agreed on the benefits of a satisfactory family support to the mental, emotional, intellectual, and social well-being of a learner. Students who reported to have excellent relationship with their parents had high levels of self-efficacy and consequently, higher academic achievement than those who reported to have low quality parent-child relationships (Yuan et al., 2016). Furthermore, Yuan et al (2016) considered a family as supportive if they have an open line of communication with their children, established a mechanism to monitor academic progress, and were receptive to their children's moods and struggles. This was especially true among collectivistic cultures, such as Asians (Yuan et al., 2016; Jibeen, 2016) and those within the Caribbean and Latin America (Hunter-Johnson & Niu, 2019). Students from these cultures were family-oriented and valued the presence of family and were brought up with the emphasis on group cohesiveness and emotional interdependence. This enabled them to maintain their motivation on an academic task (Yuan et al., 2016), increased their confidence, and coped with the challenges of academic life (Klink et al., 2008). In addition, the desire to have a better life through personal advancement was one of the notable motivations for Asian parents in encouraging their children to excel academically (Yuan et al., 2016).

Family support could also come in the form of prayer from family members, words of encouragement, financial resources, emotional support, and mechanisms that keep students culturally grounded (Hunter-Johnson & Niu, 2019). A study among first-year low-income students

in the US found no association between family financial support and academic outcomes (Roksa & Kinsley, 2019). Similarly, Demircioglu and Isik (2020) concluded that family income did not have a significant effect on the students' perceptions of self-efficacy. However, the same study found out that the amount of family support provided to a student may be reduced if the full weight of responsibility to solve their family's financial woes is borne by a single parent.

Emotional support from the immediate and extended family promoted psychological well-being, increased self-esteem and self-efficacy, helped improve student engagement, and contributed to better adjustment in college during periods of transition (Zimet et al., 1988; Roksa & Kinsley, 2019; Budescu & Silverman, 2016; Demircioglu & Isik, 2020). The perceived support from family and friends helped buffer the negative psychological effects of stress (Wilson et al., 2017). On the other hand, low levels of family support led to low academic perceptions, poor health-related outcomes, and was associated with a range of mental health problems such as increased internalization of anxiety, depression, and post-traumatic stress disorder (Jibeen, 2016; Akturk & Budak, 2019). Between genders, women reported more symptoms related to depression and anxiety and experienced more stress than men but reported greater support from friends and a significant other (Zimet et al., 1988). In Ghana, men reported greater perceived social support than women who, unfortunately, were not deemed worthy of educational investment in Ghanian culture (Wilson et al., 2017).

Family support, which was also expressed as acceptance and reassurance of worth, was correlated with higher grade point average (GPA) (Tinajero et al., 2020). According to Tinajero et al. (2020), recognizing a student's competence made them less vulnerable to stress and reassuring their worth as a person was found to increase their self-efficacy hence building their confidence to take on difficult tasks. In addition, students raised in democratic families assumed responsibility for their lives and their choices better and were more self-determined than those who grew up in an authoritarian environment (Demircioglu & Isik, 2020).

University students who were geographically distant from their immediate families benefited from the support of their extended families living near their place of study. These extended families provided an important social support network different from the kind they got from their friends and acquaintances (Taylor, 2010, as cited in Budescu & Silverman, 2016). First year and senior year students who received higher levels of support from their extended families were well-adjusted academically and emotionally, had higher levels of academic efficacy and dedication, and reported to have lower levels of psychological distress than those who received less support (Budescu & Silverman, 2016).

Theoretical/Conceptual Framework

This study was moored on the Model of Andragogy by Knowles as cited by Machynska and Boiko (2020) which described a continuum of learning with pedagogical, or other-directed, learning at one end and andragogical, or self-directed, learning at the other end. It furthermore

proposes that the self-directed learner prefers to take responsibility for meeting their own learning needs from identifying learning needs, to formulating objectives, to planning and implementing learning activities, then finally evaluating learning objectives (Matorevhu, 2022). This theory was useful in the study in explaining the linear relationship of student nurses' profile in terms of academic year level, gender, and monthly family income, and their SDLR.

Additionally, the study is supported by the Theory of Margin by McClusky as cited by Biney (2022). This theory posits that an adult must have sufficient reserve energy, or "margin," to be able to engage in self-directed learning activities (Biney, 2022). This is made possible by either decreasing the adult's energy-depleting responsibilities, also known as "load," or increasing their energy-replenishing resources, also known as "power." Two of the external resources suggested by McClusky that increase the adult's "power" is family income and family support (Quinn et al., 2019). In the context of this study, it was inferred that student nurses who intended to engage in self-directed learning activities must have adequate family support and financial resources, such as family income, to successfully accomplish learning goals. This theory was useful in the study as it explained the linear relationship of the student nurses' family support and monthly family income on their SDLR.

II. Methodology

Research Design

This study used a quantitative approach specifically the descriptive-correlational method to establish any difference or relationship between the nursing students' SDLR and their gender, academic year level, monthly family income, and perceived family support.

Respondents

Three hundred twenty-three (323) nursing students enrolled in professional nursing courses across four (4) year levels for the second semester of Academic Year 2022-2023 in the four (4) higher education institutions in Zamboanga del Norte were recruited as respondents through proportional stratified random sampling.

Research Instrument

The study used a three-part questionnaire as a data-gathering instrument. Part 1 gathered demographic information such as gender, monthly family income, and academic year level. In Part 2, the Multidimensional Scale of Perceived Social Support (MSPSS) – Family subscale (Zimet et al., 1988) was adopted to determine the level of family support received by nursing students. Four items were rated using a 7-point Likert scale ranging from 1, "very strongly disagree," to 7, "very strongly agree." The mean score was then computed based on the responses. A mean score of 1 to 2.9 indicated low support, a score 3 to 5 indicated moderate support, and a score of 5.1 to 7

indicated high support. In Part 3, the Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE) (Fisher et al., 2001) was adopted to determine the nursing students' level of self-directed learning readiness in terms of self-management, desire for learning, and self-control. Forty (40) items grouped into three subscales: (1) desire for learning (12 items); (2) self-control (15 items); and (3) self-management (13 items), and were rated using a 5-point Likert scale ranging from 1, "strongly disagree," to 5, "strongly agree." Four (4) items were negatively stated and were reverse scored. The scores were then computed based on the responses. The desired scores for the self-management, desire for learning, and self-control subscales are 47.31, 44.26, and 58.98, respectively. A total score in the three subscales greater than 150 meant adequate readiness. Pilot testing was done to nursing students who were not part of the sampled respondents. For this study, both tools have good internal consistency with Cronbach's alpha for the MSPSS-Family and SDLRSNE as 0.928 and 0.88, respectively.

Data Gathering Procedure

Permission was secured from the appropriate offices prior to the conduct of the study. Since the restrictions on face-to-face interactions have already eased, printed questionnaires were administered to the target respondents determined through stratified random sampling. The survey period was conducted from the last week of February to the second week of March 2023. Only those respondents who have given their consent completed the questionnaire. The data gathered was consolidated in tabular form according to the research questions and was interpreted and analyzed using descriptive and inferential statistics.

Ethical Considerations

An ethical clearance was secured first from the JRMSU Graduate School Research Ethics Committee (REC). Upon receipt of an endorsement from the Dean of the JRMSU Graduate School, letters were then sent to the presidents of the HEIs in Zamboanga del Norte thru the deans of the schools of nursing seeking their approval to conduct this study among their student nurses. After their approval, the objectives and purpose of the study, their role in the study, and the privacy and confidentiality measures observed in the processing of gathered data were explained to the respondents before they signed the consent forms.

Data Analysis

Frequency and percentage were used to describe the demographic profile of the respondents, while means were used to describe the levels of perceived family support and readiness for self-directed learning. Inferential statistics such as Spearman's Rank Correlation Coefficient was used to determine the relationship between the nursing students' demographic profile and perceived family support and their readiness for self-directed learning.

III. Results and Discussion

Table 1 *Demographic Profile of the Nursing Students*

Demographic Profile	Frequency	Percentage
Gender		
Male	66	20.4
Female	251	77.7
Prefer not to say	3	0.9
Prefer to self-describe	3	0.9
Academic Year Level		
First Year	139	43.0
Second Year	68	21.1
Third Year	68	21.1
Fourth Year	48	14.9
Average Monthly Family Income		
Less than P 10,000	142	44.8
Between P 10,000 to 29,000	123	38.8
P 30,000 and over	52	16.4

Profile of the Respondents. As shown in Table 1, majority of the respondents were female comprising 78% of the total number of respondents (n=323), 20% were male, and 2% either preferred not to disclose their gender or to self-describe. In terms of academic year level, 43% were in their first year (f=139, n=323), 21% are in their second year, 21% are in their third year, and 15% are in their fourth and final year. In terms of monthly family income, 44% came from families earning less than P10,000 per month (f=142, n=323), 38% came from families earning between P10,000 and P29,999 per month, and 16% came from families earning P30,000 and above each month.

This corroborated the findings of Samarasooriya et al. (2019) and Lee et al., (2020) which showed that majority of the students enrolled in the BS Nursing program were females. Current data on the nursing profession in the Philippines also show that 74.1% of nurses are female (Philippine Statistics Authority, 2016, as cited in Elmaco, 2022). The relative increase in the number of first year nursing students could be attributed to the growing demand for nurses due to the global nursing shortage which was worsened by the COVID-19 pandemic (Morris, 2023). The relatively few enrollees in the higher year levels reflected the downward trend in nursing enrollment before the pandemic which, as CHED observed, was the major reason for the lack of nurses in the country (Yang, 2022). The cost of nursing school might be overwhelming for low-income families who have children taking up nursing. Aside from the tuition and miscellaneous fees, nursing schools also charge course-specific fees such as the related learning experience (RLE) fee. While this may not be much of a problem for those in the high-income group, those in the low-income group might resort to loans to subsidize the cost of nursing school.

Table 2 *Level of Perceived Family Support Among Nursing Students*

Statement	Mean	SD	Remarks
1. My family really tries to help me.	6.55	.90	Strongly Agree
2. I get the emotional help and support I need from my family.	5.80	1.35	Agree
3. I can talk about my problems with my family.	4.88	1.70	Somewhat Agree
4. My family is willing to help me make decisions.	5.83	1.31	Agree
Average Mean Score	5.69	1.26	High Support

Note: 1.00-1.86 Strongly Disagree, 1.87-2.72 Disagree, 2.73-3.58 Somewhat Disagree, 3.59-4.44 Neither Agree nor Disagree, 4.45-5.30 Somewhat Agree, 5.31-6.16 Agree, 6.17-7.00 Strongly Agree; Interpretation of Mean Scores: 1.0-2.9 Low Support, 3.0-5.0 Moderate Support; 5.1-7.0 High Support

Level of Perceived Family Support. Table 2 shows the level of perceived family support among nursing students. The respondents' average mean score of 5.69 (±1.26) indicated that they were receiving high support from their families. Of the 4 items, the respondents strongly agreed on the statement "My family really tries to help me" receiving the highest mean of 6.55 (±0.9). On the other hand, they somewhat agreed on the statement "I can talk about my problems with my family" which received the lowest mean of 4.88 (±1.70). Furthermore, nursing students agreed to the statements "I get the emotional help and support I need from my family" and "My family is willing to help me make decisions", with weighted means of 5.80 (±1.35) and 5.83 (±1.31), respectively.

The results implied that student nurses in Zamboanga del Norte could count on their supportive families to help them survive the rigors of nursing school. Supportive families are those that were receptive to their children's moods and struggles and maintain an open line of communication with them (Yuan et al., 2016). Student nurses from collectivistic societies such as the Philippines were brought up on the importance of family cohesiveness and emotional interdependence which keep them motivated to accomplish academic tasks and effectively cope up with academic pressure (Yuan, et al., 2016; Klink et al., 2008). However, collectivism also imposes on an individual to acquiesce to harmony-maintenance norms which may make personal goals difficult to achieve (Broomhall & Phillips, 2020). To some extent, parental expectations could be perceived by college students as intrusive rather than supportive (Furry & Sy, 2015 as cited in Weintraub & Sax, 2018). This could explain why the student nurses only somewhat agreed on the statement that they can talk about their problems with their families.

Table 3 *Level of Self-Directed Learning Readiness Among Nursing Students*

Domain	Mean	SD	Remarks	Mean Score	SD	Interpretation
Self-Management	3.70	.38	Agree	48.34	5.76	Adequate Readiness
Desire for Learning	4.22	.35	Agree	51.98	4.58	Adequate Readiness
Self-Control	3.93	.42	Agree	59.00	6.19	Adequate Readiness
Overall Mean Score				159.31	13.55	Adequate Readiness

Note: 1.0-1.8 Strongly Disagree, 1.9-2.6 Disagree, 2.7-3.4 Neither Agree nor Disagree, 3.5-4.2 Agree, 4.3-5.0 Strongly Agree; Interpretation of Mean Scores: Adequate Readiness if Self-Management ≥ 47.31, Desire for Learning ≥ 44.26, Self-Control ≥ 58.98, and Total Score ≥ 150.

Level of Self-Directed Learning Readiness Among Nursing Students. The data presented in Table 3 indicates that nursing students exhibit adequate readiness for self-directed learning across all measured domains. The overall mean score of 159.31 (±13.55) exceeds the total threshold of 150, confirming adequate readiness for self-directed learning among the nursing students. This suggests that they are well-prepared to manage their own learning process. Students generally agree that they have adequate self-management skills receiving a mean of 3.70 (±.38). In addition, the mean score of 48.34 (±5.76) exceeds the threshold of 47.31, indicating adequate readiness in self-management. Moreover, students generally agree that they have a strong desire for learning receiving the highest mean of 4.22 (±.35). Additionally, the mean score of 51.98 (±4.58) is above the threshold of 44.26, suggesting adequate readiness in their desire for learning. Lastly, the students generally agree that they possess adequate self-control with a mean of 3.93 (±.42). The mean score of 59.00 (±6.19) surpasses the threshold of 58.98, indicating adequate readiness in self-control.

The mean score in self-management was consistent with the findings of Kao et al. (2013) but negated the findings of Alradini et al. (2021), Phillips et al. (2015), Ors (2018), and Chakkaravarthy et al. (2020) who reported low scores for self-management among nursing students. These self-management abilities must have been honed during the COVID-19 pandemic when nursing students had to rely on either online or modular learning modalities to achieve learning objectives (Obligar et al., 2021). In terms of desire for learning, the results were consistent with the findings of Phillips et al. (2015), Chakkaravarthy et al. (2020), Kao et al. (2013), Ors (2018), and Samarasooriya et al. (2019). This increased desire to learn could be attributed to the nursing students' perceived unpreparedness for nursing practice due to the challenges of learning during the pandemic (Rood et al., 2022). Their lack of clinical experience, especially due to the pandemic, could also be a factor for an increased desire to learn (Chakkaravarthy et al., 2020). In terms of self-control, the results partly supported the findings of studies which revealed high scores for self-control but did not concur with the findings in the other two domains (Alkorashy & Assi, 2017; Alradini et al., 2021; Singh & Paudel, 2020; Kaur et al. 2020; Kao et al., 2013; Chakkaravarty et al., 2020). Good self-control was strongly linked to effective problem-solving

skills, and both were found to be essential for nursing practice (Ozturk Eyimaya et al., 2022; Yao, 2021). Lastly, the high overall mean score supported the findings of Ors (2018) and Tekkol and Demirel (2018). This implied that nursing students could pursue self-directed learning tasks in line with current BSN curriculum.

Relationship Between Nursing Students' Profile, Perceived Family Support and their Readiness for Self-Directed Learning. The data presented in Table 4 shows the relationships between nursing students' profiles, perceived family support, and their readiness for self-directed learning. Based on the results, the nursing students' gender and average monthly family income have no significant relationship with the three domains of self-directed learning readiness. However, there is a significant negative relationship between academic year level and self-management ($r = .242$, $p = .000$) and self-control ($r = -.162$, $p = .004$). This suggests that as nursing students progress through their academic years, their readiness for self-management and self-control tends to decrease. This decline could be attributed to increased academic and clinical demands, which may overwhelm students and reduce their perceived ability to manage their time and responsibilities and self-control effectively. When individuals perceive high levels of stress, they may experience negative emotions like anxiety and tension, which can disrupt their focus and cognitive functioning (Deng et al., 2022; Zhao et al., 2024).

Among all the independent variables, it is perceived family support that consistently shows a highly significant positive relationship with self-directed learning readiness across the three domains of self-management ($r = .288$, $p = .000$), desire for learning ($r = .189$, $p = .001$), and self-control ($r = .174$, $p = .002$). These results supported the study of Alotaibi (2016) which revealed that a supporting learning environment influenced the student nurses' SDLR. These also concurred with the findings of Premkumar et al. (2018), Leatemia et al. (2016), and Kek and Huijser (2011) which found that students taking up medical courses greatly benefited from the support of parents. These students appreciated their parents who regularly checked their performance and gave them freedom to choose how they approach studying (Premkumar et al., 2018). In addition, kind and open-minded parents who always asked about the students' learning needs increased their motivation to learn (Leatemia et al., 2016). Conversely, noisy family members contributed to a non-constructive learning environment which deterred learning motivation (Leatemia et al., 2016). Moreover, the results proved McClusky's theory that external resources such as family support provided the adult student nurse with enough energy to offset the amount of energy expended on meeting the demands of nursing school (Biney, 2022; Quinn et al., 2019).

Table 4 *Significant Relationship Between Nursing Students' Profile, Perceived Family Support and their Readiness for Self-Directed Learning*

Variables	r-value	p-value	Decision
Self-Management and			
Gender	.035	.525	Failed to Reject H_0
Academic Year Level	-.242**	.000	Reject H_0
Average Monthly Family Income	-.048	.397	Failed to Reject H_0
Perceived Family Support	.288**	.000	Reject H_0
Desire for Learning and			
Gender	-.009	.877	Failed to Reject H_0
Academic Year Level	-.089	.110	Failed to Reject H_0
Average Monthly Family Income	-.048	.357	Failed to Reject H_0
Perceived Family Support	.189**	.001	Reject H_0
Self-Control and			
Gender	.034	.543	Failed to Reject H_0
Academic Year Level	-.162**	.004	Reject H_0
Average Monthly Family Income	-.050	.376	Failed to Reject H_0
Perceived Family Support	.174**	.002	Reject H_0

Note: H_0: There is no significant relationship between the nursing students' demographic profile, perceived family support and their self-directed learning readiness.

*Note: **p < 0.01 (Highly Significant); *p < 0.05 (Significant); p > 0.05 (Not Significant)*

IV. Conclusion

In this study, we explored the demographic profile, perceived family support, and self-directed learning readiness of nursing students. Our findings reveal a predominant female demographic (78%) among the respondents, with a significant proportion in their first two academic years and coming from families earning less than P30,000 per month. The study highlights that nursing students perceive high levels of family support, particularly in areas of emotional assistance and decision-making support, as evidenced by high mean scores across relevant items. Regarding self-directed learning readiness, the students demonstrate adequate readiness across self-management, desire for learning, and self-control domains, with mean scores surpassing the required thresholds. Crucially, the research identifies a significant inverse relationship between academic year level and self-management and self-control. This suggests that as students advance through their academic years, their ability to manage their time and responsibilities and maintain self-control diminishes, likely due to increased academic and clincal demands. Moreover, perceived family support consistently shows a highly significant positive relationship with all domains of self-directed learning readiness. This underscores the vital role of family support in fostering students' ability to manage their learning processes effectively. Overall, these findings highlight the need for tailored support mechanisms to enhance self-management and self-control among upper-year nursing students and emphasize the importance of family support in promoting self-directed learning readiness.

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