



## ASSERTIVENESS AND ITS ASSOCIATIONS AMONG NURSING UNDERGRADUATES IN GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY, SRI LANKA

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### ABSTRACT

*Assertiveness is considered as a valuable skill in the nursing profession as it contributes to strengthening inter-professional relationships, preventing workplace violence, reducing occupational stresses, minimizing negligence, and improving nurses' leadership ability, job satisfaction, professional autonomy, and professional efficacy. Therefore, assertiveness is an important skill that should be developed from the beginning of nursing studentship. However, there is a dearth of studies published on assertiveness among nursing students in Sri Lanka. The aim of this study was to assess the assertiveness and its association with the socio-demographic variables among the BSc. Nursing undergraduates at the General Sir John Kotelawala Defence University (KDU), Sri Lanka. The study was conducted as a descriptive cross-sectional study among all (n=147) nursing undergraduates of KDU during the period January to June 2021. A pretested self-administered questionnaire was used to assess socio-demographic data and a validated Sinhala version of the assertiveness scale developed by Begley and Glacken, 2004 to measure the level of assertiveness. The study instruments were shared online once informed consent was obtained. The data were analysed using SPSS 23.0, and descriptive statistics followed by the independent sample t-test and the one-way ANOVA test were used to estimate population parameters. The mean assertiveness of the study population was  $81.35 \pm 6.51$ . The majority (74.8%) of the study population was females. Many participants had attended leadership programmes (85.7%) and assertiveness training programmes (19.7%) conducted by the University and other institutes. The assertiveness is not significantly different within the associated factors such as gender, marital status, nationality, parents' assertiveness, age group, number in the family, academic year, English proficiency, childhood trauma, the assertiveness of close peers, interest in the nursing profession and other course work ( $P > 0.05$ ). A greater assertiveness was found among the nursing undergraduates enrolled to KDU. However, there were no statistically significant mean differences found on assertiveness among socio-demographic variables. Frequent assessments are recommended to identify the nursing students who need special attention to enhance their assertiveness skills.*

**KEYWORDS:** Assertiveness, nursing undergraduates, Sri Lanka

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## **1. INTRODUCTION**

Assertiveness means speaking up for one's interpersonal freedoms or as required by one's role responsibilities to engage others in finding viable, stable solutions. It is a learnable skill rather than a personality characteristic (Chambers, 2009). Further, it is considered as a valuable nursing skill since it brings numerous benefits (Roya et al., 2014). It has been noted that in the healthcare settings, assertiveness strengthens interprofessional relationships prevents workplace violence (Karakaş & Okanlı, 2015), reduce occupational stresses, minimizes negligence, and improves nurses' leadership skills, job satisfaction, professional autonomy, and professional efficacy.

It is very important to possess a boarder and a comprehensive understanding about the needs pertaining to health in both local and global communities. This becomes very influential when educating nurses compatible with the 21<sup>st</sup> century. Moreover, nursing education has the potential in creating opportunities to get nursing students engage in the global village. This is achieved by facilitating educational opportunities via clinical and theory-based exposure for undergraduate and graduate nursing students (Nicholas et al., 2012). In addition, enhancing self-confidence among nursing students is a core objective of a quality nursing education. This will then promote the ability of nursing students to improve their creative, analytical and critical thinking skills along with management and communication skills (İlhan et al., 2016). It is evident that assertiveness plays a vital role in interpersonal communication that enables nurses in making independent decisions regarding every aspect of their nursing practice (İlhan et al., 2016).

Assertiveness is also directly correlated with nurses' caring skills (Montini et al., 2008), and it enhances nurses' professional dignity, enabling them to solve their professional problems and prevent them from making inaccurate judgments (Yin, 2011). Young adulthood is considered as one of the most vulnerable categories, where young people encounter many problems related to mental health (Jurewicz, 2015).

The mental health issues faced by young adults by the time they enter their university life may have potential threats to the success of their academic life (McLafferty et al., 2017). Hence, university undergraduates are classified as one of the particular risk groups as they tend to volatile lifestyle deviations connected with new friendships and social norms (Sravani et al., 2018). Moreover, their perception and coping strategies are affected during the transition from secondary education to university education, and they should be expedient the needs of new routines, independence and increased academic demands due to active learning methods (Orgilés et al., 2021).

Assertive students are considered to have fewer issues with adaptation and they continue to be achievers throughout their education (Rezayat & Dehghan Nayeri, 2014). However, it has been noted that the nursing students had lack of moral courage to challenge poor practice, despite acknowledging their professional and moral duty to do so (Fagan et al., 2016). Working in a defensive culture, the pressure to fit into the team and conforming to prevailing practice (Bickhoff et al., 2017), theory-practice gap (O'Mara et al., 2014) and a fear of consequences (Levett-Jones & Lathlean, 2009) have all been suggested as reasons which preclude exhibiting assertive behaviours among nursing students. In addition, difficulties that student nurses may face in the clinical setting after commencing their theoretical and clinical education may negatively affect their assertiveness (İlhan et al., 2016). If students maintain good communication skills and use their professional knowledge and skills more effectively, they must be individuals with high self-esteem who can exhibit attitudes of assertiveness (Ünal, 2012).

The simultaneous presence of low assertiveness in the students results in interrupted educational performance, low learning process, weakened ability, and undeveloped talents (Rezayat & Dehghan Nayeri, 2014). Further, nursing students are expected to develop strategies to establish and maintain a better relationship with all the teachers, the health care team, and the patients during the undergraduate period. Therefore, good communication is crucial to nursing students' well-being and that facilitates them

to cooperate with the various specialists and patients they interact with (Nishina & Tanigaki, 2013). Hence, assertiveness is considered as an essential requirement for effective nurse/patient communication, and it is suggested that having assertive skills improves the confidence of the nursing professional (Yurtsal, 2015).

As a personal skill, assertiveness mitigates personal powerlessness and results in personal empowerment (Binuja & Nagarajaiah, 2020). In addition, it enhances nurses' effective communication to build effective team relationships (Boone et al., 2008) and patient care/safety (Nakamura et al., 2017). Therefore, educational methods should encourage assertive behaviour, and nurses should receive this educational preparation during undergraduate programmes (Mc Cabe & Timmins, 2003). In order to develop assertive graduates, nurse educators have a pivotal role in facilitating development of assertiveness skills and assess students' assertiveness levels within the degree programmes (Mc Cabe & Timmins, 2003).

Currently, the whole healthcare system in Sri Lanka is overburdened with patients, and a lack of resources and most Sri Lankan nurses have a passive way of reacting to the day-to-day activities happening in the work setting and the nurses' voice is not heard in the operational management of the hospital (De Silva, 2010). Therefore, a change in nursing education is required and university must prepare nurses with Assertiveness and technical competence to work in the rapidly changing healthcare environment (Jayasekara & McCutcheon, 2006). Moreover, it is essential to assess the Assertiveness among nursing students before making necessary changes in nursing education in Sri Lanka.

Though there are studies that have been conducted on assertiveness among nursing students worldwide, evidence on this topic is not reported in Sri Lanka. Moreover, assertiveness is an area that is still not significantly focused in nursing education in Sri Lanka. Therefore, this study was conducted to assess assertiveness and to compare the assertiveness among the personal characteristics of nursing

undergraduates at General Sir John Kotelawala Defence University (KDU), Sri Lanka. Further, the study findings may contain important information that will be very useful in upgrading the existing nursing education system in Sri Lanka, that would contribute to improve the assertiveness skills among future nurses.

## **2. METHODOLOGY**

### **Study Design**

The current study was conducted as a descriptive cross-sectional study to assess the Assertiveness among all the nursing undergraduates (n= 173) who are registered in the BSc. Nursing degree programme of Faculty of Allied Health Sciences, KDU, Sri Lanka. Participants who have not consented for the study were excluded.

### **Data Collection**

The data collection was conducted completely online once the ethical approval and the institutional permission was obtained. The contact details of the students were obtained from the Department of Nursing & Midwifery and the google forms contain questionnaires were forwarded to the students via online.

### **Study instruments**

The questionnaire which was shared online had two sections. The first section was to assess participants' characteristics and the second section consisted of the validated Sinhala version of the Begley and Glacken's Assertiveness Scale (Kumara & Warnakulasuriya, 2021). The Begley and Glacken's assertiveness scale (Begley & Glacken, 2004) that has been designed to measure assertiveness among nursing students, and it has been developed adopting the scale "Assertive behaviour in nurses" (Gerry, 1989). It consisted of 28-items with a four-point "forced choice" format with the options 'Always', 'Often', 'Rarely' and 'Never' which was also deemed to be preferable to the five-point scale that allows the respondent to avoid making a clear choice (Gray &

Grove, 2020). The test for internal consistency (Cronbach's Alpha) rendered a score of 0.653 in a previous study, demonstrating an acceptable reliability coefficient (Deltisidou, 2009) and the instrument was thus considered appropriate for its use. Further, the Sinhala validation of the Begley and Glacken's assertiveness scale has shown a good content and consensual validity and an acceptable internal consistency ( $\alpha = 0.753$ ) to use in this study (Kumara & Warnakulasuriya, 2021).

### Data analysis

The data analysis was conducted using the Statistical Package for the Social Sciences version 23.0. The normality of the assertiveness distribution was assessed by the Shapiro Wilk test performed in SPSS version 23.0, and it was a normal distribution. Descriptive statistics were used to describe the characteristics of the study population and to summarize the data. Independent t-test and one-way ANOVA were used to compare the mean differences among various participant characteristics in the study population.

### Ethical aspects

Ethical approval was received from the Ethics Review Committee, KAATSU International University, Sri Lanka and, institutional approval was received from the Dean, Faculty of Allied Health Sciences KDU for the study. All procedures were performed in compliance with relevant laws and institutional guidelines. Further, the study objectives were discussed with the participants before the data collection. Moreover, informed consent was obtained online from the study participants before administering the study instrument.

Privacy and confidentiality were ensured at all stages of the research. The names of participants were not recorded on the questionnaires. Instead, a serial number was provided to each participant to maintain privacy and confidentiality. Participants were allowed to ask questions and register any complaints via contacting the investigators by providing contact details. There were no physical or psychological risks

for the participants. However, the participants were informed that the participation is voluntary and they could withdraw from the study at any stage without giving the reasons for the withdrawal. Further, they were explained that withdrawing from the study does not affect their academic activities.

Confidentiality of the database was maintained in a completely secured way, and all the data were handled only by the principal investigator of the study. Data and other information were not given to any third parties. All collected data were stored in an electronic device under password-protection, and they will be permanently deleted after five years. All the participants were informed that their participation would be voluntary and that there would be no incentives or rewards for their contribution to the study.

## 3. RESULTS

### Participant Characteristics

The response rate of the target population was 88.02% ( $n = 147$ ). The mean age of the study group was  $24.26 \pm 4.10$ . The participants' personal and predictive factors related to assertiveness are shown in the table 1.1 and 1.2.

**Table 1.1 Personal characteristics**

| Characteristic            |           | Number | Percent -age |
|---------------------------|-----------|--------|--------------|
| Gender                    | Male      | 37     | 25.2         |
|                           | Female    | 110    | 74.8         |
| Marital Status            | Unmarried | 133    | 90.5         |
|                           | Married   | 14     | 9.5          |
| Birth order in the family | First     | 82     | 55.8         |
|                           | Second    | 47     | 32.0         |
|                           | Third     | 10     | 6.8          |
|                           | Fourth    | 6      | 4.1          |
|                           | Fifth     | 2      | 1.4          |
| Nationality               | Sinhala   | 145    | 98.6         |
|                           | Muslim    | 2      | 1.4          |
| Academic Year             | First     | 29     | 19.7         |
|                           | Second    | 44     | 29.9         |
|                           | Third     | 35     | 23.8         |
|                           | Fourth    | 39     | 26.5         |

**Table 1.2 Predictive factors related to assertiveness**

| Characteristic                                               |                                         | Number | %    |
|--------------------------------------------------------------|-----------------------------------------|--------|------|
| Was father assertive?                                        | Yes                                     | 138    | 93.9 |
|                                                              | No                                      | 9      | 6.1  |
| Was mother assertive?                                        | Yes                                     | 136    | 92.5 |
|                                                              | No                                      | 11     | 7.5  |
| Have you been a victim of bullying in childhood?             | Yes                                     | 8      | 5.4  |
|                                                              | No                                      | 139    | 94.6 |
| Had assertive close friends in childhood?                    | Yes                                     | 126    | 85.7 |
|                                                              | No                                      | 21     | 14.3 |
| Having assertive close friends at present?                   | Yes                                     | 129    | 87.8 |
|                                                              | No                                      | 18     | 12.2 |
| Extracurricular activities (School/ University):             | Leaderships                             | 126    | 85.7 |
|                                                              | Oratory (Debating, announcing)          | 5      | 3.4  |
|                                                              | Sports                                  | 68     | 46.3 |
|                                                              | Media                                   | 29     | 19.7 |
|                                                              | Adventurous activities (Scouting/Cadet) | 14     | 9.5  |
|                                                              | Music                                   | 16     | 10.9 |
|                                                              | Social activities (Leo club, Rotaract)  | 4      | 2.7  |
| The highest grade obtained for English in GCE Advanced Level | A pass                                  | 17     | 11.6 |
|                                                              | B Pass                                  | 29     | 19.7 |
|                                                              | C Pass                                  | 65     | 44.2 |
|                                                              | S Pass                                  | 34     | 23.1 |
| Do you like to get involved in the nursing profession        | Yes                                     | 121    | 82.3 |
|                                                              | No                                      | 26     | 17.7 |
| Additional courses                                           | English Diploma                         | 51     | 34.7 |
|                                                              | Computer Diploma                        | 43     | 29.3 |
|                                                              | Nursing Diploma                         | 9      | 6.1  |
|                                                              | First aid                               | 1      | 0.7  |
|                                                              | Counselling & Psychology                | 12     | 8.2  |
|                                                              | Music                                   | 2      | 1.4  |
|                                                              | Human Resource                          | 1      | 0.7  |

| Characteristic                                   |            | Number | %    |
|--------------------------------------------------|------------|--------|------|
| Have you ever attended leadership programmes?    | Management |        |      |
|                                                  | Yes        | 126    | 85.7 |
|                                                  | No         | 21     | 14.3 |
| Ever attended assertiveness training programmes? | Yes        | 29     | 19.7 |
|                                                  | No         | 118    | 80.3 |

### Assertiveness among the nursing undergraduates of KDU

The mean assertiveness score of the study population was  $81.35 \pm 6.51$ . The mean assertiveness scores of the first, second, third and fourth academic years were identified as  $81.34 \pm 0.99$ ,  $81.66 \pm 1.00$ ,  $81.43 \pm 1.13$ ,  $80.95 \pm 1.15$  respectively. When considering the descriptive statistics of the items in the assertiveness scale, it was noted that the items "I find it difficult to compliment and praise friends and acquaintances" scored the highest assertiveness total mean score from all the items. Further, the item "I try to avoid conflict at work" was the lowest assertiveness total mean score from all the items (Table 2).

**Table 2 Item wise distribution of assertiveness score among the study participants**

| Item                                                                   | %    | Mean | SD    |
|------------------------------------------------------------------------|------|------|-------|
| At work I tend to keep my feelings to myself                           | 37.0 | 1.85 | 0.541 |
| I feel uncomfortable asking a colleague to do a favour for me          | 62.0 | 3.10 | 0.659 |
| I find it difficult to compliment and praise friends and acquaintances | 75.8 | 3.79 | 0.486 |
| If a senior colleague made an unreasonable request, I would refuse     | 68.2 | 3.41 | 0.774 |
| I enjoy starting conversations with acquaintances and strangers        | 59.6 | 2.98 | 0.667 |
| I find criticism from friends and acquaintances hard to take           | 61.0 | 3.05 | 0.649 |
| I want to know what my rights are                                      | 69.2 | 3.46 | 0.685 |

| Item                                                                            | %    | Mean | SD    |
|---------------------------------------------------------------------------------|------|------|-------|
| <b>in the work situation</b>                                                    |      |      |       |
| If a friend makes an unreasonable request, I would find it difficult to refuse  | 66.8 | 3.34 | 0.745 |
| I would feel uncomfortable paying a compliment to a junior colleague            | 74.6 | 3.73 | 0.553 |
| If I was busy, I would ignore the demands of a senior colleague                 | 38.0 | 1.90 | 0.676 |
| When I know a friend's opinion is wrong, I would disagree with him/her          | 67.2 | 3.36 | 0.682 |
| At work I feel unsure what to say when I am praised                             | 63.0 | 3.15 | 0.779 |
| I tend to be over-apologetic to friends and acquaintances                       | 65.0 | 3.25 | 0.739 |
| I try to avoid conflict at work                                                 | 24.2 | 1.21 | 0.426 |
| I am very careful to avoid hurting other people's feelings                      | 26.2 | 1.31 | 0.491 |
| In a group I make the decisions                                                 | 50.4 | 2.52 | 0.666 |
| I would ask for constructive criticism about my work                            | 58.0 | 2.90 | 0.627 |
| When I am with friends, I am frank and honest about my feelings                 | 65.4 | 3.27 | 0.580 |
| If a colleague upsets a patient, I would challenge him/her about it             | 59.8 | 2.99 | 0.781 |
| If I disagreed with a decision made by a senior colleague, I would tell him/her | 56.8 | 2.84 | 0.759 |
| At work I avoid asking questions for fear of sounding stupid                    | 62.0 | 3.10 | 0.666 |
| I feel uncomfortable asking friends to do favours for me                        | 60.4 | 3.02 | 0.815 |
| When someone pays me a compliment, I feel unsure of what to say                 | 64.4 | 3.22 | 0.660 |
| If I was impressed by the actions of a senior colleague, I would tell           | 73.0 | 3.65 | 0.583 |

| Item                                                                  | %    | Mean | SD    |
|-----------------------------------------------------------------------|------|------|-------|
| <b>him/her</b>                                                        |      |      |       |
| I tend to be over-apologetic to colleagues                            | 66.0 | 3.30 | 0.771 |
| I tend to be over-concerned about patients' welfare                   | 38.8 | 1.94 | 0.654 |
| I would feel uncomfortable expressing annoyance at a senior colleague | 63.4 | 3.17 | 0.788 |
| I am a follower, rather than a leader                                 | 50.8 | 2.54 | 0.796 |

### Comparison of Assertiveness scores among various participant characteristics of the nursing undergraduates of KDU

The independent-sample t-test and one-way ANOVA were used to compare the means of the assertiveness scores with the participant characteristics like gender, marital status, nationality, parents' assertiveness, age group, number in the family, academic year, English proficiency, childhood trauma, assertiveness of closed peers, interest on the nursing profession and other course work. However, it was observed that there was no statistically significant mean difference in assertiveness between these participant characteristics and assertiveness ( $P > 0.05$ ) (Table 3).

**Table 3 Comparison of assertiveness among various participant characteristics**

| <i>Independent sample t test analysis</i>                                      |           |       |       |         |         |
|--------------------------------------------------------------------------------|-----------|-------|-------|---------|---------|
| Characteristic                                                                 | Component | Mean  | SD    | t       | P value |
| Gender                                                                         | Male      | 82.30 | 5.99  | 1.019   | 0.310   |
|                                                                                | Female    | 81.04 | 6.67  |         |         |
| Marital status                                                                 | Married   | 83.57 | 8.112 | 1.343   | 0.181   |
|                                                                                | Unmarried | 81.12 | 6.311 |         |         |
| Nationality                                                                    | Sinhala   | 81.36 | 6.555 | 0.077   | 0.939   |
|                                                                                | Muslim    | 81.00 | 1.414 |         |         |
| Do you think your father could speak up for himself honestly and respectfully? | Yes       | 81.58 | 6.558 | 1.657   | 0.100   |
|                                                                                | No        | 77.89 | 4.781 |         |         |
| Do you think your mother                                                       | Yes       | 81.26 | 6.546 | - 0.630 | 0.530   |
|                                                                                | No        | 82.55 | 6.186 |         |         |

| Independent sample t test analysis                                                                                                          |           |       |       |        |         |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|-------|--------|---------|
| Characteristic                                                                                                                              | Component | Mean  | SD    | t      | P value |
| could speak up for herself honestly and respectfully?                                                                                       |           |       |       |        |         |
| Have you been a victim of bullying from family members or outsiders for a long time as a child?                                             | Yes       | 81.25 | 8.730 | -0.046 | 0.963   |
|                                                                                                                                             | No        | 81.36 | 6.402 |        |         |
| Did you have close friends in childhood who could talk directly / who had the ability to speak up for themselves honestly and respectfully? | Yes       | 81.73 | 6.388 | 1.729  | 0.086   |
|                                                                                                                                             | No        | 79.10 | 6.942 |        |         |
| Do your current close friends who could speak up for themselves honestly and respectfully?                                                  | Yes       | 81.61 | 6.541 | 1.292  | 0.198   |
|                                                                                                                                             | No        | 79.50 | 6.148 |        |         |
| Do you like to get involved in the nursing profession                                                                                       | Yes       | 81.83 | 6.349 | 1.916  | 0.057   |
|                                                                                                                                             | No        | 79.15 | 6.926 |        |         |
| Have you ever                                                                                                                               | Yes       | 81.57 | 6.277 | 0.993  | 0.322   |
|                                                                                                                                             | No        | 80.05 | 7.820 |        |         |

| Independent sample t test analysis                           |           |       |       |        |         |
|--------------------------------------------------------------|-----------|-------|-------|--------|---------|
| Characteristic                                               | Component | Mean  | SD    | t      | P value |
| attended leadership programmes?                              |           |       |       |        |         |
| Ever attended assertiveness training programmes?             | Yes       | 82.07 | 6.059 | 0.659  | 0.511   |
|                                                              | No        | 81.18 | 6.630 |        |         |
| Followed an English course                                   | Yes       | 79.92 | 5.885 | -1.963 | 0.052   |
|                                                              | No        | 82.11 | 6.726 |        |         |
| Followed a Nursing Diploma                                   | Yes       | 81.89 | 6.827 | 0.254  | 0.800   |
|                                                              | No        | 81.32 | 6.514 |        |         |
| Followed a Counselling & Psychology coursework               | Yes       | 83.50 | 7.428 | 1.193  | 0.235   |
|                                                              | No        | 81.16 | 6.420 |        |         |
| Followed a Music coursework                                  | Yes       | 79.50 | 6.364 | -0.404 | 0.687   |
|                                                              | No        | 81.38 | 6.531 |        |         |
| One way ANOVA analysis                                       |           |       |       |        |         |
| Characteristic                                               | Component | Mean  | SD    | F      | P value |
| Age Group                                                    | 18-20     | 80.67 | 2.082 | 1.216  | 0.307   |
|                                                              | 21-25     | 81.32 | 6.390 |        |         |
|                                                              | 26-30     | 75.50 | 4.203 |        |         |
|                                                              | 31-35     | 84.00 | 7.368 |        |         |
|                                                              | 36-40     | 82.57 | 8.942 |        |         |
| Number in the family                                         | First     | 81.95 | 6.246 | 1.148  | 0.337   |
|                                                              | Second    | 81.34 | 7.023 |        |         |
|                                                              | Third     | 79.10 | 7.187 |        |         |
|                                                              | Fourth    | 77.00 | 3.521 |        |         |
|                                                              | Fifth     | 81.50 | 6.364 |        |         |
| Academic Year                                                | First     | 81.34 | 5.354 | 0.083  | 0.969   |
|                                                              | Second    | 81.66 | 6.637 |        |         |
|                                                              | Third     | 81.43 | 6.683 |        |         |
|                                                              | Fourth    | 80.95 | 7.189 |        |         |
| The highest grade obtained for English in GCE Advanced Level | A         | 82.29 | 6.162 | 1.121  | 0.343   |
|                                                              | B         | 81.03 | 5.003 |        |         |
|                                                              | C         | 80.37 | 7.277 |        |         |
|                                                              | S         | 82.71 | 6.196 |        |         |

## 4. DISCUSSION

Globally, it is recognized that assertiveness skills are essential at all levels of health care delivery, and in all health care roles, from student nurse to qualified

practitioner, from the field of direct patient care to that of health strategy development (Benton, 1999). As nurses and midwives move away from traditional roles, an increasing need to behave assertively has been recognized. Plenty of studies support the use of assertiveness skills in clinical settings (Burnard, 1991; Poroch & McIntosh, 1995; Rayo et al., 2014; Timmins & McCabe, 2005).

The assertiveness among the nursing undergraduates of the KDU was measured using the Sinhala version of the Begley and Glacken's scale (Kumara & Warnakulasuriya, 2021). The mean score of the assertiveness scale was  $81.35 \pm 6.51$  among the nursing undergraduates of KDU. A study conducted among the Irish nursing students by Begley and Glacken, the total "level of assertiveness" score was  $69.87 \pm 6.83$  in the first administration and was  $73.73 \pm 7.21$  in the second administering after the assertiveness course (Begley & Glacken, 2004). A similar study conducted among the nursing undergraduates in Greece, the Assertiveness mean scores were assessed in the first semester with the advanced semester using this Begley and Glacken assertiveness scale. It was found that the mean "level of assertiveness" score achieved by first semester participants was  $72.36 \pm 6.671$ , whereas,  $74.71 \pm 6.850$  among advanced semesters participants, (Delsidou, 2009). Thus, it shows that the nursing undergraduates who participated in the current study have a comparatively higher assertiveness mean score than the nursing students in those studies conducted in other countries. Therefore, we can assume that the nursing degree programme of KDU plays an essential role in enhancing the Assertiveness of the students. Further, the leadership programmes inculcated in the system and the military environment in KDU might have influenced positively for this incensement.

When considering the descriptive statistics of the items in the assertiveness scale among the undergraduates of the KDU, it was noted that the items "I find it difficult to compliment and praise friends and acquaintances" scored the highest assertiveness total mean score from all the items. Further, the item "I try to avoid conflict at work"

scored the lowest assertiveness total mean score from all the items. A similar study conducted among nursing students in the first semester in a nursing education institute in Greece found that the item "I try to avoid conflict at work" scored the lowest assertiveness total mean score from all the items (Delsidou, 2009). Further, the item "I would feel uncomfortable paying a compliment to a junior colleague" gained the highest Assertiveness mean score. The item "I am very careful to avoid hurting other people's feelings" gained the lowest Assertiveness mean score among the nursing undergraduates of the University of Colombo. It was noted that the item "I would feel uncomfortable paying a compliment to a junior colleague" also gained the highest mean score in the study conducted by Begley and Glacken among Irish nursing students (Begley & Glacken, 2004). Moreover, the item "I am cautious to avoid hurting other people's feelings" has also gained the lowest mean score in a study conducted among nursing students in Greece (Delsidou, 2009).

In the current study, there was no significant difference between the two genders with the Assertiveness score of the undergraduates of KDU. Some of the previous studies conducted on Assertiveness have also pointed out that there was no statistically significant difference in assertiveness between two genders (Larijani et al., 2017; Seyedfatemi et al., 2013; Taghavi Larijani et al., 2009). However, some studies have revealed that men have a higher degree of Assertiveness than women (Adejumo, 1981; Eskin, 2003; Hersen et al., 1974), and on the contrary, some studies have revealed that women have higher levels of Assertiveness than men depending on various contexts and situations (Chandler et al., 1978).

The nationality of the study group has some degree of influence on the assertive behaviour of the individuals. However, the majority of the current study group consisted of Sinhalese students and statistically significant difference in Assertiveness among the nationality groups were not observed. A significantly vital area to be explored is the influence of the Sri-Lankan culture and religion upon the level

of Assertiveness among the nurses.

There were some evidences that an individual's order of birth within the family had influenced characteristic style of interacting with others (Murawski et al., 1995). Moreover, previous research has repeatedly supported the belief that oldest children should rate higher in leadership than later born children (Schultz, 1993). Therefore, the characteristic birth order was questioned from the study population, and in the current study the majority of the participants were firstborn of the family. Similarly, Cobb and French (1966) found that firstborns were overily represented among a sample of American medical students (Cobb & French Jr., 1966), and Shaver, French, and Cobb (1970) indicated that the same was true for Swedish medical students (Shaver et al., 1970). However, there was no statistically significant difference found in assertiveness among the participants as per their birth order.

The influence received from the family has a more significant impact on Assertiveness. Therefore, the undergraduates were questioned on their perception on the parents' Assertiveness with the question "Do you think your father/ mother could speak up for himself/ herself honestly and respectfully?" Majority of the participants believed that both parents had the ability to speak up for themselves honestly and respectfully. Further, the results revealed that there was no statically significant difference in assertiveness between their views on parents' Assertiveness and the assertiveness of the participants in the current study. Moreover, undergraduates were assessed on whether family members or outsiders have bullied them during their childhood and its relationship towards Assertiveness. However, no statistically significant difference in Assertiveness was noted among the participants who had atraumatic childhood and who did not have such childhood.

Undergraduates of the KDU were further assessed on the closed peers' Assertiveness and its relationship towards Assertiveness. This was assessed by asking the close-ended questions "Did you have close

friends in childhood who could talk directly / who could speak up for themselves honestly and respectfully?" and "Do your current close friends speak up for themselves honestly and respectfully?" However, there was no statistically significant difference between these variables with the Assertiveness. Further, a similar study conducted in Turkey on the relationship between peer pressure and Assertiveness found that there was no significant correlation between mean assertiveness scores and mean peer pressure scores of the students (Arslan et al., 2013).

The nursing undergraduates of KDU consist of a group of students who had joined as lateral entrants to follow the degree programme after attending the three-year nursing diploma course from the government, and most of them are matured and married. Therefore, the relationship between marital status and Assertiveness was assessed, but there is no statistically significant difference in the assertiveness between the married and unmarried participants. Further, there was no statistically significant difference in the assertiveness between the nursing undergraduates who had already completed the government nursing diploma (lateral students) and those who have not. However, a previous study has proven that the nurses who possessed a nursing diploma as their highest level of academic qualification had lower levels of Assertiveness than the nurses who have completed their Bachelor's degrees and above (Kilkus, 1993).

In the current study there was no statistically significant differences in the assertiveness score among the undergraduates at different study levels in four academic years. However, the study conducted by Begley and Glacken revealed that the Irish nursing students who participated in the study reported an increase in levels of Assertiveness as nursing students approached completion of their three-year education programme (Begley & Glacken, 2004). Furthermore, another four-year longitudinal study conducted among nursing students to determine the effect of nurse education assertiveness of nursing students revealed that there was a significant difference in the Assertiveness in all academic years (İlhan et al.,

2016). Moreover, the current study, there was no statistically significant difference in the assertiveness score between the participants who have attended leadership or assertiveness training and those who did not participate in such trainings. However, several studies have proved the positive impact of assertiveness training programmes to improve Assertiveness among nursing students (Kilkus, 1993; Omura et al., 2018; Yoshinaga et al., 2018).

### **Conclusion and Recommendation**

The results showed considerably high assertiveness score among the nursing undergraduates of KDU. However, it was observed that there was no statistically significant mean difference in assertiveness between these participants' characteristics and assertiveness. Therefore, we can assume that the current nursing programme of KDU plays an essential role in enhancing the Assertiveness of the students. Further, it is recommended to study the different nursing curriculums in different universities in Sri Lanka on the assertiveness teaching and its effectiveness. With that, an updated well designed assertiveness teaching protocol can be developed parallel to the nursing education programmes in Sri Lanka.

Furthermore, frequent assessments can be conducted to identify the nursing students who need special attention to enhance their assertiveness skills. Moreover, the nursing students can be motivated to do extracurricular activities, which enhance their assertiveness skills. And also, further research is needed to investigate other interrelated factors like communication patterns and paternal dominance that might have impact on Assertiveness.

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