

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

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Abstract

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

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

Abstrak

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

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

Introduction

The nursing profession faces a greater staffing shortage problem compared with other health-care professionals. According to World Health Organization (2014), the shortage of healthcare

workers is expected to reach 12.9 million by 2035. Nurses represent more than 50% of the current shortage. The shortage of nurses in the healthcare sector is a major problem because nurses are the front liners in the healthcare sector and make up the largest section of health-

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

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

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

Methods

A cross-sectional study was conducted among 155 students from three selected schools in

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

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

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

Results

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

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

For the socioeconomic status of nursing as in Table 2, the respondents had very positive perceptions. They viewed nursing to be respected (M= 3.30, SD= 0.56), important in keeping people well (M= 3.58, SD= 0.53), and appreciated

(M= 3.28, SD= 0.54). Moreover, respondents also disagreed with statements that nurses are similar to secretaries (M= 2.52, SD= 0.66) and are equal to doctors (M= 2.52, SD= 0.77). The most negative perception was nursing is a profession only for women (M= 1.65, SD= 0.67).

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

Table 1. Demographic Data of Respondents

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

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

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

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

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

Table 4. Students' Perceptions of Nursing Professionalism

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

Table 5. Students' Perceptions of Nursing Working Conditions

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

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

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

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

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

Table 5 shows nursing working conditions where respondents realized the fact that nursing is a very busy job (M= 3.10, SD= 0.72). They perceived nurses to perform unpleasant tasks to care for their patients (M= 3.11, SD= 0.73) and work with people rather than objects (M= 3.07, SD= 0.71). The only misperception toward nursing working conditions was that nursing is a

profession that does not include much technical work (M= 2.36, SD= 0.72).

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

Discussion

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

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

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

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

For nursing professionalism, the students positively viewed nursing as a caring profession, a career that helps people, especially sick people, and uses high skills and knowledge in dealing with people. The main essence of nursing is ca-

ring because most studies found caring as an important element in nursing (Mkala, 2013). The misconception about nursing was the respondents considered nursing as an independent profession without powerful people and unable to make decisions about patient care by themselves. The truth is, nursing is a profession with its own license and board to ensure standards. Lack of awareness regarding this information could make people continue to have this side of thought.

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

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

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

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

Conclusion

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

the remaining negative image of nursing and enhancing the image of nursing in the society.

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References

- Al Kandari, F., & Ogundeyin, W. (1998). Patients and nurses' perceptions of the quality of nursing care in Kuwait. *Journal of Advanced Nursing*, 27 (5), 914–921. <https://doi.org/10.1046/j.1365-2648.1998.00047.x>.
- Al-Mahmoud, S., & Mullen, P.M. (2013). The commitment of Saudi nursing students to nursing as a profession and as a career. *Life Science Journal*, 10 (2), 591–603. Retrieved from http://www.lifesciencesite.com/ljsj/life1002/086_17742life1002_591_603.pdf.
- Aris, A., Sulaiman, S., & Hasan, M.K.C. (2019). The influence of music therapy on mental well-being among postoperative patients of total knee arthroplasty (TKA). *Enfermeria Clinica*, 29 (S2), 16–23. doi: 10.1016/j.enfcli.2019.04.004.
- Jan, A., & Sikander, S. (2012). Perceptions of high school students about nursing as a career. *Rawal Medical Journal*, 37 (1), 13–17. Retrieved from <http://www.rmj.org.pk/?mno=11841>.
- Keshk, L.I., Mersal, F.A., & Al Hosis, K.F. (2016). Preparatory students' perception about the nursing profession and its impact on their career choice in Qassim University in KSA. *American Journal of Nursing*, 4 (3), 74–82. doi: 10.12691/ajnr-4-3-4.
- Lamadah, S.M., & Sayed, H.Y. (2014). Challenges facing nursing profession in Saudi Arabia. *Journal of Biology, Agriculture and Healthcare*,

- 4 (7), 20–25. Retrieved from <https://core.ac.uk/download/pdf/234659818.pdf>.
- Liaw, S.Y., Wu, L.T., Chow, Y.L., Lim, S., Tan, K.K. (2017). Career choice and perceptions of nursing among healthcare students in higher educational institutions. *Nurse Education Today*, 52, 66–72. doi: 10.1016/j.nedt.2017.02.008.
- Neilson, G.R., & Jones, M.C. (2012). What predicts the selection of nursing as a career choice in 5th and 6th year school students? *Nurse Education Today*, 32 (5), 588–593. doi: 10.1016/j.nedt.2011.06.011.
- Mkala, B. (2013). *Nursing as a career: First year students' perception of and the reasons for their choice of nursing as a career* (Bachelor Thesis, Degree Programme in Nursing). Finlandia: JAMK University of Applied Sciences. Retrieved from <https://www.theseus.fi/bitstream/handle/10024/70207/Thesis.pdf?sequence=1&isAllowed=y>.
- Patidar A., Kaur J., Sharma S., Sharma, N. (2011). Future nurses' perception towards profession and carrier plans: A cross sectional survey in state Punjab. *Nursing and Midwifery Research Journal*, 7 (4), 175–185. <http://doi.org/10.33698/NRF0131>.
- Saad, S.M., Fatima, S.S., & Faruqi, A.A. (2011). Students' views regarding selecting medicine as a profession. *Journal of the Pakistan Medical Association*, 61 (8), 832–836. <https://pubmed.ncbi.nlm.nih.gov/22356018/>
- Sharif, N.A.M., Hasan, M.K.C., Jamaludin, F.I.C., & Firdaus, M.K.Z.H. (2018). The need for first aid education for adolescents. *Enfermería Clínica*, 28 (S1), 13–18. [https://doi.org/10.1016/S1130-8621\(18\)30028-7](https://doi.org/10.1016/S1130-8621(18)30028-7).
- Tawash, E.A. (2016). *Factors influencing the high school students' choice of a nursing career in Bahrain: Development of a best practice model for nursing recruitment*. In proceeding 48th World Congress on Advanced Nursing Research, Ireland, 14–15 June 2018. Retrieved from <https://www.omicsonline.org/conference-proceedings/advanced-nursing-research-2018-scientifictracks.digital/files/assets/basic-html/page-28.html>.
- Williamson, C.L. (2012). Hispanic female undergraduates' perception of nursing as a career choice: A phenomenological study (Doctoral dissertation, Health Administration). Arizona: University of Phoenix. Retrieved from <https://search.proquest.com/docview/1151409623?pq-origsite=gscholar>.
- World Health Organization. (2014). *Global health workforce shortage to reach 12.9 million in coming decades*. Retrieved from <http://www.who.int/mediacentre/news/releases/2013/healthworkforceshortage/en/index.html>.
- Wu, L.T., Low, M.M.J., Tan, K.K., López, V., & Liaw, S.Y. (2015). Why not nursing? A systematic review of factors influencing career choice among healthcare students. *International nursing review*, 62 (4), 547–562. doi: 10.1111/inr.12220.
- Yusoff, N.S.M., Firdaus, M.K.Z.H., Jamaludin, F.I.C., & Hasan, M.K.C. (2019). The need for educating healthcare professionals regarding good musculoskeletal health practice. *Enfermería Clínica*, 29 (S2), 579–584. doi: 10.1016/j.enfcli.2019.04.089.