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TITLE: NURSING STUDENTS' CARE OF AND ATTITUDES TOWARDS LESBIAN, GAY, BISEXUAL, TRANS, AND INTERSEX PEOPLE IN TIMES OF COVID-19 IN SPAIN: A CROSS-SECTIONAL STUDY

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Running Head: Nursing students' cares towards LGBTI during COVID-19

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ABSTRACT

Objective: To measure the knowledge and attitudes of Catalan nursing students regarding lesbian, gay, bisexual, trans and intersex (LGBTI) patients, as well as their perception of specific training in this area, according to their internship modalities, sociodemographic circumstances and academic background during the COVID-19 pandemic.

Background: During the COVID-19 pandemic, the Spanish Government created the “Health-Aid” internship: a paid alternative to curricular internships. There is extensive evidence that paid work environments perpetuate negative attitudes towards LGBTI patients.

Method: Cross-sectional survey aimed at Catalan nursing students. The "Attitudes Towards and Knowledge About Lesbian, Gay, Bisexual, Trans and Intersex Patients" questionnaire was adapted. Descriptive study and backward regression models were constructed.

Results: 337 students, mean age 23.80 years (SD: 5.17) participated. 85% women and 54 (16%) completing the Health Aid internship modality. More than 50% did not attend specific training on the care of the LGBTI population. Differences between internship modalities showed higher values in the curricular internship group: attitudes ($U = 6526.50$, $p = 0.031$) and training perception ($U = 5926.50$, $p = 0.008$).

Conclusions: Nursing students' attitudes towards LGBTI patients and their perception of specific training on care for this population were negatively influenced by the paid Health Aid internship during the pandemic.

Implications for Nursing Management: Even under dire circumstances, clinical training must be properly managed to address the specific health needs of vulnerable populations, such as LGBTI patients. Paid internships in emergency scenarios may impede these objectives.

KEYWORDS: Nursing education; Curricula; LGBTI people; Gender identity; COVID-19

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BACKGROUND

Although there are international regulations and agreements that promote equality in education (Winkler & Satterthwaite, 2017) and health (Müller, 2016), evidence shows that discrimination still occurs against people with diverse affectional/sexual orientation and gender identity (Busby et al., 2020; Pichardo & Cabezas, 2019). Affectional/sexual and gender diversity encompasses various affectional and sexual orientations, gender expressions and identities, and sexual characteristics or developments (Gasch-Gallén et al., 2020). This includes lesbian, gay, bisexual, transexual and intersex individuals (LGBTI) (Cabral Grinspan et al., 2017).

To understand how this discrimination occurs, comprehensive approaches must be used to analyze the impact of the conditioning factors of the sex/gender system on health. Aspects such as sex difference and gender roles (Sutherland et al., 2017), the gender-relational approach (Connell, 2012) and the beyond-the-gender-binary perspective must be addressed to respond to diverse care needs and avoid essentialist views (Eliason, 2017).

A recent review indicates that LGBTI individuals are more likely to experience health inequality due to heterosexism, stress from discrimination, and victimization (Zeeman et al., 2019). These inequalities may vary according to gender, age, income and disabilities (Zeeman

et al., 2017). Therefore, it is essential to understand the specific health needs resulting from discrimination, concealment and clandestine living (Gasch-Gallén et al., 2018). A comprehensive approach to providing appropriate health care and service to these populations must include knowledge of the characteristics of LGBTI realities and the acquisition of specific competencies (Blondeel et al., 2016; Gasch-Gallén et al., 2020). The UN Report on the impact of the COVID-19 pandemic on the human rights of LGBT persons highlights determining factors at the global level: social exclusion, violence, stigma and discrimination make this population more vulnerable in situations such as the pandemic (ACNUDH, 2020).

There is evidence of the inequality experienced by LGBTI people within health science degrees (Crimmins, 2020; Fish et al., 2021). To date, research with university students shows contradicting results.

Although it is expected that university students would reject negative beliefs about LGBTI people, this population experiences greater rates of harassment and discrimination than their heterosexual peers in the higher education community (Greathouse et al., 2018). For example, LGBTI medical students in the United States are more likely than their heterosexual peers to experience burnout (Samuels et al., 2021). Northern Irish students who identify as LGBTI are more exposed to trauma and post-traumatic stress disorder (Travers et al., 2020).

Inclusive teaching with a focus on affectional/sexual and gender diversity is essential in health science education (Gasch-Gallén et al., 2020; Ruano-Casado & Ballestar-Tarín, 2015; Ruiz-Cantero et al., 2020). However, due to the expectations and demands of the healthcare system, health science education is heterocentric. It often fails to clearly recognize the implications of gender identity and affectional/sexual diversity in providing appropriate health care. (Kellett & Fitton, 2017). Although training in gender and health has been expanded in recent decades in university degrees and postgraduate education (Avci et al., 2021; Pratt-Chapman & Phillips, 2020), there are still gaps in these programs. Thus, the need to explore

how education on sexuality is provided has been highlighted (Castleberry, 2019; Eliason, 2017).

The COVID-19 pandemic has impacted this situation since the demands placed on the healthcare sector are multiplied during health crises (Boniol et al., 2019). It is known that pandemics affect vulnerable populations: in fact, the most vulnerable are those most affected (J. A. Smith & Judd, 2020). The LGBTI community is especially vulnerable not only to the risk of infection and barriers to accessing healthcare but also to the psychosocial consequences of the global lockdown (Banerjee & Nair, 2020). Furthermore, Mattei et al. (2021) point out that little attention has been paid to the impact of the COVID-19 financial recession on discrimination against LGBTI persons (Mattei et al., 2021). Additionally, given the scarcity of resources in our setting, the Health Aid internship modality (Ibáñez Barceló et al., 2020) allowed healthcare centers to hire senior nursing students to cope with the increasing demands for healthcare. Thus, fourth-year students joined the ranks as healthcare workers.

There are currently no studies on the differences between this type of contract and regular undergraduate curricular internships or the effects of these emergency actions on the training of nurses. These factors may ultimately lead to an increase in health inequalities (J. Smith, 2019).

The evidence presented above highlights the importance of identifying university students' attitudes towards and prejudices against affectional/sexual and gender diversity during the pandemic, as well as the training they received on gender and LGBTI communities (Keuroghlian et al., 2017). In our setting, there are no studies on the predisposition of nursing students, that is, on their knowledge about and attitudes towards providing care for affectional/sexual diverse people during their internships and the role of their training. This research is necessary both to expand our general knowledge of what happens in the academic environment and curricular internships and to facilitate the training needs of students to provide comprehensive care. These factors have been highlighted in various international studies on young populations (Bosse & Chiodo, 2016), as has the possibility of the COVID-19 pandemic affecting attitudes towards LGBTI people.

This study aims to measure undergraduate and postgraduate Catalan nursing students' knowledge about and attitudes towards LGBTI patients, as well as their perception of training in this area, and analyse the results based on their internship modality, sociodemographic circumstances and academic background. It forms part of a broader study focused on two complementary areas: the identification of legitimized everyday machismo, and knowledge about, attitudes towards and perceptions of the health and care of LGBTI people in nursing education.

METHODS

We conducted an online, descriptive, cross-sectional study to understand knowledge about and attitudes towards affectional/sexual and gender diversity, as well as the perception of specific training in this area, using the survey tool Google Forms. The online survey was open from November 2020 to March 2021. It took an average of 7 minutes to complete.

The inclusion criteria were to be either a third- or fourth-year undergraduate or a first- or second-year postgraduate nursing student in Catalonia. There were no exclusion criteria. The study included a convenience sample recruited via snowball sampling. The coordinator committees and/or faculty deans invited their students to participate via e-mail or instant messaging regardless of gender identity. We asked student representatives and equality commission members to collaborate in publishing information about the study to circulate the invitation even further.

The following sociodemographic variables were collected: age, gender, sexual identity, background (rural or urban), income source, last academic year completed, number of internships completed, previous or current student offices and internship modality (curricular internship vs. Health Aid contract).

Subsequently, the "Attitudes Towards and Knowledge About Lesbian, Gay, Bisexual and Transgender Patients" (Strong & Folse, 2015) questionnaire was adapted to our study population and purposes. We tested it in a pilot study with 228 health professionals and obtained adequate internal consistency (Cronbach Alpha: $\alpha = .74$) and good sample size suitability (Kaiser-Meyer-Olkin: $KMO = .815$) (Gasch-Gallen, Á. Tomás-Aznar, 2017).

The questionnaire comprises 15 items with statements about knowledge of the health realities of LGBTI individuals (heteronormativity, homophobia and specific needs), attitudes towards LGBTI patients in clinical practice, and perception of the training received on caring for this population. A Likert scale with 4 options was used to score the responses, ranging from "Totally disagree" (1 point) to "Totally agree" (4 points). The higher the score, the greater the student's knowledge (knowledge subscale), the more positive their attitude towards LGBTI patients (attitudes subscale), and the better their evaluation of specific training on affectional/sexual and gender diversity (training perception subscale).

Data analysis

Categorical variables were compared using the chi-squared test or Fisher's exact test when necessary. The association between categorical and continuous variables was studied using Student's t-test and ANOVA, and the Mann-Whitney U test and Kruskal-Wallis test in the case of non-parametric distributions. The Jonckheere-Terpstra test was used to study the effects of ordinal variables on continuous variables. The correlation of continuous data was tested with Pearson's correlation coefficient and Spearman's correlation coefficient for non-parametric distributions. Lastly, backward regression models were constructed to identify the most relevant variables that might have determined the score of the overall scale and each of its subscales. The level of significance was set at $p = 0.05$ for all operations. Statistical analysis was performed using SPSS 25.0.

Ethical considerations

The study protocols and questionnaire were approved by the Human and Animal Experimentation Ethics Committee of the Universitat Autònoma de Barcelona (CEEA-5264-2020). There was a consent statement at the beginning of the survey, and it was implicitly granted by agreeing to complete the survey. Data anonymity and confidentiality were ensured following the requirements established by the Spanish and European data protection laws and directives.

RESULTS

A total of 358 participants (Figure 1) were recruited from different universities in Catalonia. Twenty-one were excluded because they did not reply to all the survey items. The final sample included 337 subjects.

Table 1 shows sociodemographic and academic data. Students had a mean age of 23.80 years (SD: 5.17) and 85% identified as women. Most of the sample (83%) came from urban settings, and 70% paid for the cost of their education through salaried work. More than 33% were graduate students, and 54 participants reported having opted for the Health Aid internship modality. More than 50% did not attend specific curricular training programs on caring for LGBTI patients; slightly less than 50% did not attend any extracurricular training either.

Table 2 shows differences in scale and subscale scores according to internship options (all scores ranging from 0 to 100). Overall score was significantly different between groups, with higher values in the curricular internship group. Regarding the subscales, there were no significant differences in knowledge across groups ($U = 6757.00$, $p = 0.177$), whereas the results for attitudes ($U = 6526.50$, $p = 0.031$) and training perception ($U = 5926.50$, $p = 0.008$) were significantly higher in the curricular internship group.

Table 3 shows the linear backward regression models constructed to explore variables that might have influenced the scale and subscale scores. For the knowledge subscale, a negative effect was found for older age ($B = -0.311$, $p = 0.039$) and currently working in the healthcare sector ($B = -4.607$, $p = 0.005$), while there was a positive effect for the number of internships ($B = 2.417$, $p = 0.001$). For the attitudes subscale, rural background ($B = -3.895$, $p = 0.040$) and the Health Aid internship option ($B = -4.429$, $p = 0.027$) had a negative impact on the score, whereas number of internships had a positive impact ($B = 2.382$, $p < 0.001$). In the final model, working in the healthcare sector had no significant negative impact on the attitudes subscale ($B = -2.789$, $p = 0.064$). For the training perception subscale, a higher salary decreased the predicted score ($B = -2.436$, $p = 0.001$), while having attended specific training

courses increased it, with a greater impact for those who attended them as part of the nursing studies curriculum ($B = 13.310$, $p = 0.043$) than those who did so on an extracurricular basis ($B = 3.370$, $p = 0.020$). Overall score was negatively influenced by older age ($B = -0.215$, $p = 0.036$), currently working in the healthcare sector ($B = -3.489$, $p = 0.002$) and having opted for the Health Aid internship option ($B = -3.171$, $p = 0.032$), whereas it was positively impacted by a higher number of internships ($B = 1.832$, $p < 0.001$) and having received specific training as part of the nursing curriculum ($B = 2.141$, $p = 0.043$).

DISCUSSION

This study provides insight on the knowledge and attitudes of nursing students in Catalonia regarding the clinical care of LGBTI patients, as well as their perception of training in this area. The results show a general profile similar to that found in the literature, demonstrating the need for progress in providing education on care for LGBTI individuals (Mitchell et al., 2016). Given the lack of specific and standardized training programs within the official nursing curriculum, students interested in these areas of knowledge seek training outside their official studies. This can be observed in the number of students who completed non-official educational and informational activities covering existing gaps in their nursing training (Keepnews, 2011).

Our findings show that Health Aid contracts were associated with lower scores in knowledge about, attitudes towards and perception of affectional/sexual and gender diverse patients. In this study, scores were better among younger participants, those who had completed more internships and those who had received specific training on affectional/sexual and gender diversity, in line with the results of previous studies (Cornelius & Carrick, 2015).

In addition, older age and currently working in the health sector were found to negatively influence the score. As some studies have previously noted, age seems to be a key factor in knowledge and attitudes since older professionals acknowledged the needs of LGBTI individuals less while their younger counterparts held more positive attitudes (Donisi et

al., 2020). Nevertheless, the literature is inconclusive about the exact role of age (Aleshire et al., 2019).

A negative relationship was also found when students were involved in the Health Aid internship modality and/or currently working in the healthcare sector. Some studies point out that the Spanish and European health systems are permeated with heterosexist assumptions (McGlynn et al., 2020). Professionals may engage in negative stereotyping towards LGBTI collectives (Aleshire et al., 2019; Fallin-Bennett, 2015) and/or deny the existence of specific barriers to those populations (Donisi et al., 2020; Semlyen et al., 2018; McGlynn et al., 2020). Additionally, in countries with legislation protecting LGBTI collectives, there is the widespread belief that inequalities for such individuals no longer exist or are insignificant; health professionals too are susceptible to such beliefs (Walters, G. D., Knight, R. A., Langström, 2011). In light of this, it can be deduced that the quality of care is even worse during health crises (Chatterjee et al., 2020)

The question that arises is why senior students and recent graduates develop more negative attitudes when they are all still quite young and have only had a working relationship with the healthcare system. One possible answer is found in McGlynn et al. (2019), who point to an unconscious reproduction of heterosexist views in professional settings that specifically affects recent graduates and salaried senior students employed through the Health Aid internship option. These heterosexist views respond to what Bordieu et al. (1977) called *symbolic violence*, a central theory used to explain male domination (Bourdieu et al., 1977). In this sense, symbolic processes (words, images and practices) promote the interests of dominant groups (heterosexual men, in this case) and convince those who are dominated (women and other dissident gender identities) to accept the imposed hierarchy (Fernández, 2005). Two widely held assumptions from this explanation can be applied to the health system and, consequently, to healthcare professionals: 1) by default, the population served is heterosexual, cisgender and not intersex; and 2) LGBTI individuals do not experience significant inequalities, so LGBTI subjective realities are irrelevant in healthcare provision (McGlynn et al., 2020).

Another possible answer is related to the demanding working conditions that healthcare professionals endured during the COVID-19 pandemic, which significantly impacted their health. Nurses experienced increased work stress. Professionals were driven to emotional exhaustion (Galanis et al., 2021) due to the greater working demands, workload, complexity of work, work pressure and increased working hours during the COVID-19 pandemic (Martínez et al., 2022). The pandemic contributed to high rates of burnout among professionals (Torrente et al., 2021), jeopardizing patient care and doubling the likelihood of providing suboptimal care due to poor professionalism (Panagioti et al., 2018). Exhaustion negatively affected the quality of nursing care (Bergman et al., 2021; Galanis et al., 2021). In addition, the organizational environment of the pandemic made this situation more complex, such that the worse the organizational context, the less empathetic the responses of its professionals (Elayyan et al., 2018). Furthermore, pandemics tend to disrupt health services, which affects vulnerable populations the most (Bowleg, 2020). Evidence suggests that financial recessions, including that caused by COVID-19, could increase discrimination against LGBTI people, since they form part of vulnerable groups or minorities (Mattei et al., 2021).

On the other hand, we have also found that attitudes are more often negative when students come from rural areas. Although coming from rural areas has been identified as a potentially decisive factor in many areas related to health, research in other countries suggest that more specific and contextualized studies are needed (Prairie et al., 2019). However, studies conducted in Spain have identified significant barriers to small-town dwellers (Aragó Navarro, 2019) in rural settings, particularly lesbian women (Fernández-Rouco et al., 2013). There is also research highlighting socio-spatial precariousness as a result of the oppressive coexistence experienced by many LGBTI people (Ugidos et al., 2020).

Another finding of this study is the need for specific nursing training on healthcare for LGBTI people. In general, studies have identified inadequate knowledge on the subject, that is slightly better among those who continue their training, but less so than among undergraduates (Cornelius & Carrick, 2015). In this sense, previous research argues that

undergraduate training on LGBTI health is inadequate and that specific interventions with case studies could improve knowledge about and attitudes towards proper health care for LGBTI people (Strong & Folse, 2015). Evidence shows that training healthcare workers to improve cultural competencies about the healthcare needs of LGBTI people is a critical step in addressing inequalities in healthcare settings (Donisi et al., 2020). Other studies found that a higher level of health-related knowledge about LGBTI people was not predictive of more positive attitudes (Aleshire et al., 2019). It has been recommended that they be incorporated into training and awareness-raising initiatives for healthcare professionals (McGlynn et al., 2020).

This study is not exempt from the limitations stemming from cross-sectional design. Convenience sampling with snowballing requires caution regarding its representativeness. We did not use any filters or barriers to prevent respondents from answering the same survey twice. However, we stressed that it should only be answered once, both in the wording and to the participants who started the snowball sampling. The sample was mainly female and, while representative of the characteristics of the student population from which it was drawn, the results must be interpreted carefully in the case of male and non-binary subjects. Among its strengths, this study is the first to analyze nursing students' knowledge, attitudes and training perceptions in the context of the pandemic. It highlights specific gaps in emergency health situations and the need for new advances in the provision of excellent care to reduce health inequalities.

CONCLUSIONS

Nursing students' knowledge about and attitudes towards LGBTI people, as well as their perception of specific training on adequate care for this population, are negatively influenced by the Health Aid paid internship modality established during the pandemic. This situation is worse in the case of older professionals and those already working in the healthcare sector. It is mitigated when respondents completed a greater number of internships and received

specific training as part of undergraduate nursing curricula. Factors that promote negative attitudes towards LGBTI people include the heterosexist and heterocentric context of the health system, chaotic and complex working conditions in the midst of the pandemic, and the synergies of pandemics and financial crises that have a greater effect on the most vulnerable groups. It is necessary to adopt educational measures based on the rights of the LGBTI community to address their specific health needs, especially in times of pandemic or any type of crisis.

IMPLICATIONS FOR NURSING MANAGEMENT

LGBTI individuals experience health inequalities due to heterosexism and discrimination in healthcare settings. This is an ongoing situation that demonstrates the need to systematically review care protocols and procedures managed by nurses. New lines should be implemented in decision-making and intervention management during emergency situations to ensure that more comprehensive care is provided to vulnerable patients. Professional internships that place the student in positions more akin to the workforce could hinder the acquisition of proper competencies in the care of patients from vulnerable groups. These competencies that will ultimately be negatively affected once the professional is fully engaged in the labor market. These intricacies should be considered in future instances of paid internship options in emergency scenarios such as the Health Aid modality created specifically to face the pandemic.

REFERENCES

(ACNUDH), A. C. de las N. U. para los D. H. (2020). *COVID-19 y los derechos humanos de las personas LGBTI. ¿Cuál es el impacto del COVID-19 en las personas LGBTI?* Ginebra, Suiza: ACNUDH.

<https://www.ohchr.org/Documents/Issues/SexualOrientation/Summary-of-Key-Findings-COVID-19-Report-ESP.pdf>

Aleshire, M. E., Ashford, K., Fallin-Bennett, A., & Hatcher, J. (2019). Primary Care Providers' Attitudes Related to LGBTQ People: A Narrative Literature Review. *Health Promotion Practice, 20*(2), 173–187. <https://doi.org/10.1177/1524839918778835>

Aragó Navarro, B. (2019). *Escapar del poble': Itineraris de sexili cap a la ciutat*. https://repositori.urv.cat/estatic/TFM0011/es_TFM464.html

Avci, N., Cayir, G., Kizilkaya Beji, N., & Savaser, S. (2021). Evaluation of Gender Courses Offered in Accord with the Curriculum of the Faculties of Health Sciences in Turkish Universities. *Florence Nightingale Journal of Nursing, 29*(1), 65–73. <https://doi.org/10.5152/FNJN.2021.19033>

Banerjee, D., & Nair, V. S. (2020). “The untold side of COVID-19”: Struggle and perspectives of the sexual minorities. *Journal of Psychosexual Health, 2*(2), 113–120.

Bergman, L., Falk, A., Wolf, A., & Larsson, I. (2021). Registered nurses' experiences of working in the intensive care unit during the COVID-19 pandemic. *Nursing in Critical Care, 26*(6), 467–475.

Blondeel, K., Say, L., Chou, D., Toskin, I., Khosla, R., Scolaro, E., & Temmerman, M. (2016). Evidence and knowledge gaps on the disease burden in sexual and gender minorities: A review of systematic reviews. *International Journal for Equity in Health, 15*(1), 1–9. <https://doi.org/10.1186/s12939-016-0304-1>

Boniol, M., Mclsaac, M., Xu, L., Wuliji, T., Diallo, K., & Campbell, J. (2019). *Gender equity in the health workforce: analysis of 104 countries*. World Health Organization.

Bosse, J. D., & Chiodo, L. (2016). It is complicated: Gender and sexual orientation identity in LGBTQ youth. *Journal of Clinical Nursing, 25*(23–24), 3665–3675.

Bourdieu, P., Passeron, J.-C., Melendres, J., & Subirats, M. (1977). *La reproducción: elementos para una teoría del sistema de enseñanza*. Laia Barcelona.

Bowleg, L. (2020). We're not all in this together: On COVID-19, intersectionality, and structural inequality. In *American journal of public health* (Vol. 110, Issue 7, p. 917).

American Public Health Association.

- Busby, D. R., Horwitz, A. G., Zheng, K., Eisenberg, D., Harper, G. W., Albucher, R. C., Roberts, L. W., Coryell, W., Pistorello, J., & King, C. A. (2020). Suicide risk among gender and sexual minority college students: The roles of victimization, discrimination, connectedness, and identity affirmation. *Journal of Psychiatric Research*, *121*, 182–188.
- Cabral Grinspan, M., Carpenter, M., & Ehrt, J. (2017). The Yogyakarta Principles plus 10. *Journal Geneva*, November, 27. http://yogyakartaprinciples.org/wp-content/uploads/2017/11/A5_yogyakartaWEB-2.pdf
- Castleberry, J. (2019). Addressing the gender continuum: A concept analysis. *Journal of Transcultural Nursing*, *30*(4), 403–409.
- Chatterjee, S., Biswas, P., & Guria, R. T. (2020). LGBTQ care at the time of COVID-19. *Diabetes & Metabolic Syndrome*, *14*(6), 1757.
- Connell, R. (2012). Gender, health and theory: conceptualizing the issue, in local and world perspective. *Social Science & Medicine*, *74*(11), 1675–1683.
- Cornelius, J. B., & Carrick, J. (2015). A survey of nursing students' knowledge of and attitudes toward LGBT health care concerns. *Nursing Education Perspectives*, *36*(3), 176–178.
- Crimmins, G. (2020). *Strategies for Supporting Inclusion and Diversity in the Academy: Higher Education, Aspiration and Inequality*. Springer Nature.
- Donisi, V., Amaddeo, F., Zakrzewska, K., Farinella, F., Davis, R., Gios, L., Sherriff, N., Zeeman, L., Mcglynn, N., & Browne, K. (2020). Training healthcare professionals in LGBTI cultural competencies: exploratory findings from the Health4LGBTI pilot project. *Patient Education and Counseling*, *103*(5), 978–987.
- Elayyan, M., Rankin, J., & Chaarani, M. W. (2018). Factors affecting empathetic patient care behaviour among medical doctors and nurses: an integrative literature review. *Eastern Mediterranean Health Journal*, *24*(3), 311–318.
- Eliason, M. J. (2017). The gender binary in nursing. *Nursing Inquiry*, *24*(1), e12176.

<https://doi.org/10.1111/nin.12176>

- Fallin-Bennett, K. (2015). Implicit bias against sexual minorities in medicine: cycles of professional influence and the role of the hidden curriculum. *Academic Medicine, 90*(5), 549–552.
- Fernández-Rouco, N., González, R. J. C., & Garlito, P. C. (2013). Bienestar de las mujeres lesbianas en el medio rural: un estudio exploratorio. *Revista de Investigación En Psicología, 16*(2), 125–138.
- Fernández, J. M. F. (2005). La noción de violencia simbólica en la obra de Pierre Bourdieu: una aproximación crítica. *Cuadernos de Trabajo Social, 18*, 7–31.
- Fish, J., Almack, K., Hafford-Letchfield, T., & Toze, M. (2021). *What Are LGBT+ Inequalities in Health and Social Support—Why Should We Tackle Them?* Multidisciplinary Digital Publishing Institute.
- Galanis, P., Vraika, I., Fragkou, D., Bilali, A., & Kaitelidou, D. (2021). Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of Advanced Nursing, 77*(8), 3286–3302.
- Gasch-Gallen, Á. Tomás-Aznar, C. (2017). Las carencias en el enfoque de género en la práctica asistencial: una llamada a la acción. Análisis preliminar. *Gac Sanit. 31 (Espec Congr)*, 152. https://www.reunionanualsee.org/2017/documentos/Gaceta_Sanitaria.pdf
- Gasch-Gallén, Á., Gregori-Flor, N., Hurtado-García, I., Suess-Schwend, A., & Ruiz-Cantero, M. T. (2020). Diversidad afectivo-sexual, corporal y de género más allá del binarismo en la formación en ciencias de la salud. *Gaceta Sanitaria*.
<https://doi.org/https://doi.org/10.1016/j.gaceta.2019.12.003>
- Gasch-Gallén, À., Rodríguez-Arenas, M. Á., Tomás-Aznar, C., Latasa, P., Gil-Borrelli, C. C., Velasco-Muñoz, C., & Mateos, J. T. (2018). Inclusión de la orientación afectivo-sexual y de las identidades de género como determinantes sociales de la salud. *Gaceta Sanitaria*. <https://doi.org/10.1016/j.gaceta.2017.12.008>
- Greathouse, M., Brckalorenz, A., Hoban, M., Huesman, R., Rankin, S., & Stolzenberg, E. B. (2018). *Queer-spectrum and trans-spectrum student experiences in American higher*

education: The analyses of national survey findings.

Ibáñez Barceló, S., Alcaraz Clemente, L., & Del Valle Cebrián, F. (2020). Experiencia en tiempos de pandemia. *Revista Española de Educación Médica*, 1(2), 21–31.

<https://doi.org/10.6018/edumed.428851>

Keepnews, D. M. (2011). Lesbian, gay, bisexual, and transgender health issues and nursing: Moving toward an agenda. *Advances in Nursing Science*, 34(2), 163–170.

Kellett, P., & Fitton, C. (2017). Supporting transvisibility and gender diversity in nursing practice and education: embracing cultural safety. *Nursing Inquiry*, 24(1), e12146.

Keuroghlian, A. S., Ard, K. L., & Makadon, H. J. (2017). Advancing health equity for lesbian, gay, bisexual and transgender (LGBT) people through sexual health education and LGBT-affirming health care environments. *Sexual Health*, 14(1).

<https://doi.org/10.1071/SH16145>

Martínez, M. M., Fernández-Cano, M. I., Feijoo-Cid, M., Serrano, C. L., & Navarro, A. (2022). Health outcomes and psychosocial risk exposures among healthcare workers during the first wave of the COVID-19 outbreak. *Safety Science*, 145, 105499.

Mattei, G., Russo, T., Addabbo, T., & Galeazzi, G. M. (2021). The COVID-19 recession might increase discriminating attitudes toward LGBT people and mental health problems due to minority stress. *International Journal of Social Psychiatry*, 67(4), 400–401.

McGlynn, N., Browne, K., Sherriff, N., Zeeman, L., Mirandola, M., Gios, L., Davis, R., Donisi, V., Farinella, F., & Rosińska, M. (2020). Healthcare professionals' assumptions as barriers to LGBTI healthcare. *Culture, Health & Sexuality*, 22(8), 954–970.

Mitchell, K. M., Lee, L., Green, A., & Skyes, J. (2016). The gaps in health care of the LGBT community: Perspectives of nursing students and faculty. *Papers & Publications: Interdisciplinary Journal of Undergraduate Research*, 5(1), 5.

Müller, A. (2016). Health for all? Sexual orientation, gender identity, and the implementation of the right to access to health care in South Africa. *Health and Human Rights*, 18(2), 195.

- Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., Peters, D., Hodkinson, A., Riley, R., & Esmail, A. (2018). Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA Internal Medicine*, *178*(10), 1317–1331.
- Pichardo, J. I., & Cabezas, L. P. (2019). University and sex gender diversity: barriers, innovations and challenges for the future/Universidad y diversidad sexogenérica: barreras, innovaciones y retos de futuro. *Methaodos. Revista de Ciencias Sociales*, *7*(1), 10.
- Prairie, T. M., Wrye, B., Bowman, A. S., Weatherby, N., & Thareja, G. (2019). Does Location of Practice or Religiosity Predict Negative Physician Attitudes or Beliefs Toward LGB+ Individuals? *Journal of Religion and Health*, *58*(6), 2208–2218.
<https://doi.org/10.1007/s10943-019-00894-8>
- Pratt-Chapman, M. L., & Phillips, S. (2020). Health professional student preparedness to care for sexual and gender minorities: efficacy of an elective interprofessional educational intervention. *Journal of Interprofessional Care*, *34*(3), 418–421.
- Ruano-Casado, L., & Ballestar-Tarín, M. L. (2015). Incorporación de la promoción y educación para la salud en los planes de estudio de grado en Ciencias de la Salud de la Universitat de València. *FEM: Revista de La Fundación Educación Médica*, *18*(2), 149–153.
- Ruiz-Cantero, M. T., Tomás-Aznar, C., Rodríguez-Jaume, M. J., Pérez-Sedeño, E., & Gasch Gallén, Á. (2020). Agenda de género en la formación en ciencias de la salud: experiencias internacionales para reducir tiempos en España. *Gaceta Sanitaria*, *33*, 485–490.
- Samuels, E. A., Boatright, D. H., Wong, A. H., Cramer, L. D., Desai, M. M., Solotke, M. T., Latimore, D., & Gross, C. P. (2021). Association Between Sexual Orientation, Mistreatment, and Burnout Among US Medical Students. *JAMA Network Open*, *4*(2), e2036136–e2036136.
- Semlyen, J., Ali, A., & Flowers, P. (2018). Intersectional identities and dilemmas in

- interactions with healthcare professionals: an interpretative phenomenological analysis of British Muslim gay men. *Culture, Health & Sexuality*, 20(9), 1023–1035.
- Smith, J. (2019). Overcoming the 'tyranny of the urgent': integrating gender into disease outbreak preparedness and response. *Gender & Development*, 27(2), 355–369.
- Smith, J. A., & Judd, J. (2020). COVID-19: Vulnerability and the power of privilege in a pandemic. *Health Promotion Journal of Australia*, 31(2), 158.
- Strong, K. L., & Folse, V. N. (2015). Assessing undergraduate nursing students' knowledge, attitudes, and cultural competence in caring for lesbian, gay, bisexual, and transgender patients. *Journal of Nursing Education*, 54(1), 45–49.
- Sutherland, N., Ward-Griffin, C., McWilliam, C., & Stajduhar, K. (2017). Structural impact on gendered expectations and exemptions for family caregivers in hospice palliative home care. *Nursing Inquiry*, 24(1). <https://doi.org/10.1111/nin.12157>
- Torrente, M., Sousa, P. A. C., Sánchez-Ramos, A., Pimentao, J., Royuela, A., Franco, F., Collazo-Lorduy, A., Menasalvas, E., & Provencio, M. (2021). To burn-out or not to burn-out: a cross-sectional study in healthcare professionals in Spain during COVID-19 pandemic. *BMJ Open*, 11(2), e044945.
- Travers, Á., Armour, C., Hansen, M., Cunningham, T., Lagdon, S., Hyland, P., Vallières, F., McCarthy, A., & Walshe, C. (2020). Lesbian, gay or bisexual identity as a risk factor for trauma and mental health problems in Northern Irish students and the protective role of social support. *European Journal of Psychotraumatology*, 11(1), 1708144.
- Ugidos, C., López-Gómez, A., Castellanos, M. Á., Saiz, J., González-Sanguino, C., Ausín, B., & Muñoz, M. (2020). Evolution of intersectional perceived discrimination and internalized stigma during COVID-19 lockdown among the general population in Spain. *International Journal of Social Psychiatry*, 0020764020975802.
- Walters, G. D., Knight, R. A., & Langström, N. (2011). Is hypersexuality dimensional? Evidence for the DSM-5 from general population and clinical samples. *Archives of Sexual Behavior*, 40, 1309–1324.
- Winkler, I. T., & Satterthwaite, M. L. (2017). Leaving no one behind? Persistent inequalities

in the SDGs. *The International Journal of Human Rights*, 21(8), 1073–1097.

Zeeman, L., Sherriff, N., Browne, K., McGlynn, N., Aujean, S., Pinto, N., Davis, R.,
Mirandola, M., Gios, L., Amaddeo, Francesco Donisi, V., Rosinska, Magdalena
Niedźwiedzka-Stadnik, M., & Pierson, A. (2017). *Reducing health inequalities felt by
LGBTI people.*

http://ec.europa.eu/health/social_determinants/projects/ep_funded_projects_en.htm#fragment2

Zeeman, L., Sherriff, N., Browne, K., McGlynn, N., Mirandola, M., Gios, L., Davis, R.,
Sanchez-Lambert, J., Aujean, S., & Pinto, N. (2019). A review of lesbian, gay, bisexual,
trans and intersex (LGBTI) health and healthcare inequalities. *European Journal of
Public Health*, 29(5), 974–980.

Accepted Article

Table 1. Sociodemographic and academic data

	Curricular practices (n = 283)	Health Aid (n = 54)	Total (n = 337)
Age, mean (SD)	23.83 (5.17)	23.67 (4.87)	23.80 (5.17)
Gender, n (%)			
Male	37 (10.98%)	7 (2.08%)	44 (13.06%)
Female	242 (71.81%)	47 (13.95%)	289 (85.76%)
Non-binary	4 (1.19%)	0 (0.0%)	4 (1.19%)
Background, n (%)			
Urban	239 (70.92%)	42 (12.46%)	281 (83.38%)
Rural	44 (13.06%)	12 (3.56%)	56 (16.62%)
Salaried work earnings, n (%)			
None	97 (28.78%)	5 (1.48%)	102 (30.27%)
Less than 1000€ per month	88 (26.11%)	21 (6.23%)	109 (32.34%)
From 1000 to 1500€ per month	57 (16.91%)	22 (6.53%)	79 (23.44%)
More than 1500€ per month	41 (12.17%)	6 (1.78%)	47 (13.95%)
Working in the healthcare sector, n (%)			
Yes	138 (40.95%)	8 (2.37%)	146 (43.34%)
No	145 (43.03%)	46 (13.65%)	191 (56.68%)
Current year, n (%)			
Pre graduate, third year	99 (29.38%)	0 (0.0%)	99 (29.38%)
Pre graduate, fourth year	81 (24.04%)	38 (11.28%)	119 (35.31%)
Postgraduate, first year	50 (14.84%)	16 (4.75%)	66 (19.58%)
Postgraduate, second year	53 (15.73%)	0 (0.0%)	53 (15.73%)
Amount of internships			
None	15 (4.45%)	0 (0.0%)	15 (4.45%)
1-2	54 (16.02%)	4 (1.19%)	58 (17.21%)
3-4	66 (19.58%)	6 (1.78%)	72 (21.36%)
5-6	87 (25.82%)	23 (6.82%)	110 (32.64%)
More than 6	61 (18.10%)	21 (6.23%)	82 (24.33%)
Specific training within Nursing Studies, n (%)			
Yes	125 (37.09%)	34 (10.09%)	159 (47.18%)
No	158 (46.88%)	20 (5.93%)	178 (52.82%)
Specific training beyond Nursing Studies, n (%)			
Yes	152 (45.10%)	29 (8.61%)	181 (53.71%)
No	131 (38.87%)	25 (7.42%)	156 (46.29%)
SD: standard deviation			

Accepted Article

Table 2. Scores according to internship option

	Knowledge	Attitudes	Training perception	Overall
Curricular practice, mean (SD)	74.47 (14.47)	95.23 (11.78)	73.39 (14.79)	79.72 (9.39)
Health Aid, mean (SD)	74.14 (14.26)	94.64 (13.00)	72.46 (14.91)	79.16 (9.80)
Difference, U (p-value)	6757.00 (0.177)	6526.50 (0.031)	5926.50 (0.008)	6177.50 (0.025)
SD: standard deviation U: Mann-Whitney's U				

Table 3. Linear backward regressions

	B	95% CI		p-value
		Lower	Upper	
Knowledge				
Age	-0.311	-0.607	-0.015	0.039
Currently working in the healthcare sector	-4.607	-7.794	-1.420	0.005
Number of internships	2.417	1.026	3.809	0.001
Attitudes				
Background (Rural)	-3.895	0.183	7.607	0.040
Currently working in the healthcare sector	-2.789	-5.745	0.168	0.064
Number of internships	2.382	1.095	3.669	0.000
Internship option (Health Aid)	-4.429	-8.338	-0.520	0.027
Training perception				
Salaried work earnings	-2.436	-3.811	-1.061	0.001
Specific training within Nursing Studies	13.310	10.476	16.145	0.000
Specific training beyond Nursing Studies	3.370	0.537	6.203	0.020
Overall score				
Age	-0.215	-0.416	-0.014	0.036
Currently working in the healthcare sector	-3.489	-5.706	-1.273	0.002
Number of internships	1.832	0.874	2.789	0.000
Specific training within Nursing Studies	2.141	0.064	4.218	0.043
Internship option (Health Aid)	-3.171	-6.073	-0.268	0.032
All study variables in table 1 were included in all initial models. Table shows only final models. Table shows only final models. B: Non-standardized coefficient CI: Confidence interval				

Figure 1. Study Sample

