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Sexuality and gender diversity in children and young people: opportunities, limits and challenges in training for professionals via a MOOC course

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Abstract

Various studies have demonstrated how the discrimination and violence experienced by LGBT+ children and youth people affect their mental health and quality of life. Training for professionals working with children and young people is a key means of helping them provide the necessary support LGBT+ children and youth people, for handling any violence that may occur in their immediate environment, as well as for empowering them. This article discusses changes in the attitudes, beliefs and practices of professionals working with children and young people following their participation in a Massive Open Online Course (MOOC) delivered through the online platform of the University of Girona To this end, two surveys were carried out with the participants – the first at the beginning of the course, and the second at the end – in order to evaluate possible changes. Participants' attitudes, beliefs and practices regarding sexuality and gender diversity in childhood improved, even when taking into account the fact that they began from an initial position of support. The use of MOOC training has value, given the need to engage with sexuality and gender diversity as part of formal training for a variety of professionals working with children and young people.

Keywords

MOOC, Gender and sexuality diversity, Childhood, Youth, professional skills, professional beliefs

Introduction

LGBT+¹ children and young people experience various forms of violence, harassment and discrimination in many spheres of life, putting their physical and mental health at significant risk (Russell and Fish 2016). The LGBTI EU Survey (European Union Agency for Fundamental Rights 2019) revealed that 46% of respondents had experienced bullying in school or being ridiculed, insulted or harassed because of their sexual orientation and/or gender identity. 19% reported having felt discriminated against by their school's or university's staff in the last 12 months.

Along similar lines, UK data shows that a large proportion of people experiencing anti-LGBT+ bullying in schools feel that teachers do not do enough to prevent or remedy the situation (Government Equalities Office 2018). Other studies suggest that trans and non-binary people consider that, in general terms, educational professionals do not know how to address them using appropriate nomenclature and pronouns. In turn, teachers claim to feel insecure, uncomfortable or unwilling to undertake training on sexuality and gender diversity and/or address these issues in the classroom (Jones 2022). Woodford and Kubrick (2015) highlight the need to create a welcoming environment within education in order to promote the wellbeing of LGBT+ people.

Beyond the educational sphere, LGBT+ children and young people experience violence and discrimination in other settings such as the family (Newcomb et al. 2019), health systems (Hafeez et al., 2017) and the media (Patton et al. 2014). This is especially the case in social networks, where some may encounter derogatory representations and attitudes, and in the worst case by subject to cyber-violence (Simangele, Reema, and Nirmala 2020). Although the experiences of LGBT+ children and young people are diverse and cannot be reduced only to episodes of violence or discrimination, such experiences fundamentally shape their development. This is why creating a safe environment in which diversity is valued is essential to enhancing their wellbeing and development.

To prevent LGBT+phobia and improve the wellbeing of LGBT+ children and young people, it is essential to ensure that those who support them are equipped with the appropriate professional and personal skills. Incorporating appropriate forms of training into teacher education and rethinking pedagogy from a queer perspective is fundamental to building an inclusive educational culture (Aguirre, Moliner, and Francisco 2021). Such can enhance social acceptance, affirm values that are fundamental to one's sense of self, and reduce anxiety and other negative emotions associated with threats to self-esteem (Herek and McLemore 2013). Training in LGBT+ issues can improve the skills and abilities of professionals in different areas of work (education, health, social services, security, media, etc.), as well as the attitudes and behaviours of the general public (Herek and McLemore 2013). Pezzella et al. (2023) and Baiocco et al. (2021) argue that greater effort is required to develop a culturally competent and compassionate approach to teaching and learning for LGBTQ+ young people, free from sexual and gender prejudice and discrimination.

Within this context, Massive Online Open Courses (MOOC) offer considerable potential for those working on academic content. Their incorporation into university curricula

¹ Our choice of the acronym LGBT+ when referring to the set of sexual and gender identities and expressions that are not heterosexual or cisgender is made with the aim of including identities beyond lesbian gay, bisexual and transgender identities. Nevertheless, where other authors cited in this text have used alternative acronyms or categories, we have maintained these. Moreover, it is worth remarking that, even as we use LGBT+ as a catch-all acronym, there are significant differences between the factors affecting individuals represented by one or more of the letters included.

has been considered one of the most significant recent technological advances from an educational perspective (Guerrero et al. 2021; Ruiz-Palmero et al. 2019; Zhou et al. 2020). Among the advantages attributed to such courses are: a) the wide range of training that they offer; b) their spatio-temporal flexibility, using an asynchronous format which can be followed online; c) trainee autonomy, reducing the workload of the teacher or instructor to the design and organisation of the course, while those who participate in the course to become agents with an active role in carrying out the proposed tasks, and d) the improvement of digital skills (Berrocso 2015; Cabero et al. 2021; Colomo et al. 2022).

At the same time, however, this methodology has been said to present a series of disadvantages, including: a) a lower level of student engagement; b) increased cost in setting up and maintaining a MOOC; c) a depersonalisation of the educative process and lack of group interaction; and d) rigid and inflexible evaluation, with the sole purpose of providing content that justifies progress and advancement within the MOOC itself (Al-Imarah et al. 2021; Colomo et al. 2022). Be this as it may, when the advantages and disadvantages of the application of MOOCs are analysed, the overall benefits (universalisation, flexibility, thematic breadth, etc.) appear sufficient arguments for accepting this new development and as part of higher education provision (Alario-Hoyos et al. 2015; Al-Imarah et al. 2021).

A number of studies have shown that MOOC programmes to improve knowledge and awareness about sexuality and gender diversity have proven satisfactory for those who have participated in them, with participants reporting having developed more positive attitudes, new skills and a greater understanding of LGBT+ issues (Higgins et al. 2019), in addition to achieving greater awareness of LGBT+ phobic and discriminatory attitudes (Nagrle et al 2020). Such promise, which was earlier alluded to by Goldman (2016) – who pointed out that MOOCs may provide a useful complement to face-to-face education when dealing with complex and controversial issues – is particularly relevant. Research by Canavese et al. (2020) has highlighted the positive impact of MOOCs in LGBT+ healthcare education and training. In contrast to this work, the present study focuses on the potential of MOOCs to provide a means of teaching about and addressing sexual and gender diversity in childhood and youth.

Structure and objectives of this article

The MOOC² on Tools to Prevent and Combat Violence against LGBT+ Children and Youth was developed as part of the European-funded research project Diversity and Childhood. During the initial phase of the project, testimonies from children, young people and stakeholders involved in providing support on sexual and gender diversity to children and young people were elicited. Based on the results of this research and a training needs analysis, an education and training programme was designed and rolled out via a MOOC aimed to a broad audience with an interest in improving their understanding of sexuality and gender diversity, especially professionals such as social workers, teachers, health professionals working with children and young people. The majority of these were working across Europe in several fields of children's well-being and the education system.

In this article, we offer a preliminary assessment of the experience drawing upon findings from pre and post-MOOC course questionnaires completed by a varied sample of participants, as described below. Key issues explored were: (i) the beliefs and opinions of the participants regarding various factors related to sexuality and gender diversity in children, and (ii) the reactions of the participants to possible situations of anti-LGBT+ violence which

2 Massive Open Online Courses (MOOCs) are free online courses in which anyone can enrol.

they might encounter in professional and/or social settings. In both of these areas, our interest lay in analysing possible changes that might occur in responses before and after the course. This could offer insight into the development of professional and personal competence, as well as to raise awareness more generally about approaches to understanding sexuality and gender diversity in children. In this regard, it should be noted that our work took the form of a preliminary and descriptive study, not a controlled trial.

Materials and methods

Design

As part of the Diversity and Childhood. Changing social attitudes towards gender diversity in children across Europe project funded by the European Union (Agreement number 856680), a four module MOOC was made online available during June and July 2022. The course consisted of five modules as follows and was developed in English by an international multi-disciplinary team³:

Module 0: Welcome to the course, presentation of the structure of the course, team and pre-survey.

Module 1: Introduction to the MOOC. Sexuality and gender diversity in childhood.

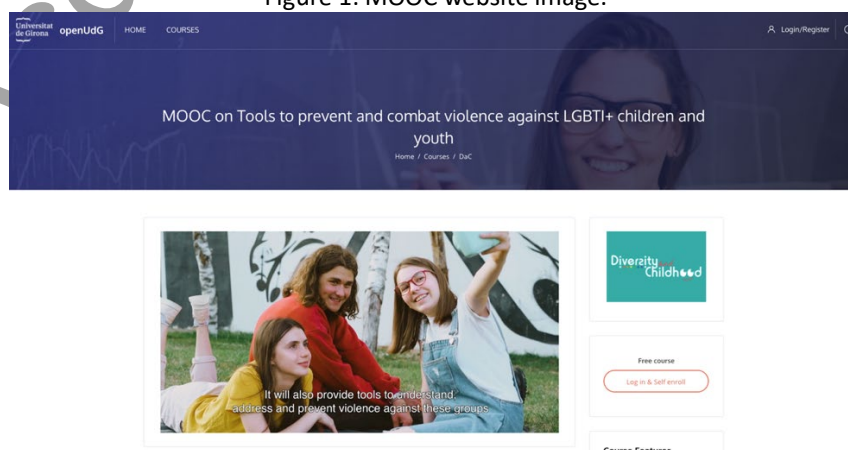
Module 2: Violence against LGBTI+ children.

Module 3: Contexts of violence against LGBTI+ children and empowering opportunities.

Module 4: Assisting LGBTI+ children, evaluation questionnaire and post-survey

The course was hosted on the University of Girona virtual platform and used Moodle as its learning platform. It was promoted by means of an introductory video, announced on the project's website and promoted through social networks to project partners and other related organisations. The course was scheduled to take place over a four-week period, but remained open for an extra two weeks so that all four modules could be completed. Participants were required to complete an initial and a final survey, to allow us to evaluate the immediate impact of the training undertaken.

Figure 1: MOOC website image.



3. The course was developed by Ana Cristina Santos, Maílda Esteves, Alexandra Santos, from CES-University of Coimbra, Portugal; Jose Antonio Langarita, Pilar Albertín and Núria Sadurní, from the University of Girona, Spain; Beatriz San Román, Marisela Montenegro and Joan Pujol, from the Autonomous University of Barcelona, Spain and Mojca Urek and Anže Jurček, from the University of Ljubljana, Slovenia

Data collection instruments

Data were collected by means of a questionnaire consisting of closed questions divided into three sections: (i) socio-demographic questions; (ii) questions relating to knowledge of sexuality and gender diversity in children and young people, with a single correct answer to each of the questions asked; and (iii) questions relating to beliefs and practices regarding sexuality and gender diversity.

To assess participants' beliefs regarding sexuality and gender diversity in childhood, three types of questions were asked: questions regarding LGBT+ children and young people's rights; questions regarding public policies on sexuality and gender diversity for children and young people, and questions regarding social interactions in academic and family environments. To assess the effectiveness of the training participants were asked to provide answers on a Likert scale, with participants able to choose from options ranging from "Strongly disagree" to "Strongly agree" (including "I don't know").

Promoting the MOOC

As indicated earlier, the MOOC was promoted online via social networks. A promotional video featuring project stakeholders was developed and made available in different ways (Facebook, Twitter, a website and via e-mail) in nine countries in the European Union: Belgium, Croatia, Greece, Hungary, Lithuania, Poland, Portugal, Slovenia and Spain. Facebook's advertising service was also used to promote the course to potential participants with an interest in this type of training. Participants registered for the course on the basis of their own personal interest in doing so.

Participants

The MOOC was an open and non-exclusive course. The results of this research have been prepared taking into account that 47.8% of those who completed the first survey – prior to the course – failed to take the second upon course completion. Additionally, the course dropout rate, although significant, is much lower than in other free online courses. According to Jordan (2014), the completion rate of MOOC courses ranges between 0.9% and 36.1%, with an average value of 6.5%.

As depicted in Table 1, most participants fell within the age range of 19 to 29 years and identified themselves as female. Regarding respondents' professions in both the initial and final surveys, education and health emerged as the predominant fields. However, it is worth noting that some participants mentioned being engaged in other professional domains not covered by the survey, suggesting a potential interest from non-professionals in the field of childhood and youth. In terms of sexual orientation, heterosexuality emerged as the most prevalent, followed by bisexuality. The countries with the highest levels of participation were Poland, Portugal, and Spain, ranking as the top three, respectively.

Table 1: Socio-demographic characteristics of participants who started and finished the course

	Initial Participants	Final Participants
Age		
19-29	80 (51.61%)	41 (50.62%)
30-39	47 (30.32%)	25 (30.86%)
40-49	23 (14.83%)	12 (14.81%)
50-59	5 (3.22%)	3 (3.7%)
Sexual orientation		
Heterosexual	63 (40.13%)	37 (45.12%)
Bisexual	23 (14.65%)	12 (14.63%)
Lesbian	21 (13.38%)	10 (12.19%)
Gay	19 (12.1%)	7 (8.55%)
Pansexual	16 (10.19%)	10 (12.19%)
Asexual	3 (1.91%)	2 (2.44%)
Other	16 (10.19%)	1 (1.22%)
I'd rather not say	5 (3.18%)	3 (3.66%)
Gender identity		
Man	22 (14%)	12 (14.6%)
Woman	118 (75.16%)	63 (76.8%)
Non-binary	12 (7.64%)	4 (4.9%)
Other	4 (2.54%)	2 (2.4%)
Rather not say	1 (0.63%)	1 (1.2%)
Professional area		
Education	66 (42.04%)	30 (36.59%)
Health	37 (23.57%)	20 (24.4%)
Public safety and wellbeing (police, community workers, etc.)	14 (9.55%)	7 (8.54%)
Media and Networks	6 (3.82%)	4 (4.9%)
Family care	3 (1.91%)	1 (1.2%)

Other	30 (19.11%)	20 (24.4%)
Level of education/training		
PhD.	8 (0.64%)	4 (4.88%)
Master's degree	80 (50.96%)	42 (51.22%)
Undergraduate degree	47 (30.57%)	27 (39.93%)
Tertiary education	10 (6.37%)	4 (4.88%)
Secondary education	9 (5.73%)	4 (4.88%)
Other	1 (0.64%)	0 (0%)
Country of residence		
Argentina	2 (1.31%)	2 (2.56%)
Belgium	11 (7.19%)	4 (5.13%)
Brazil	2 (1.31%)	2 (2.56%)
Croatia	7 (4.58%)	5 (6.41%)
Greece	4 (2.61%)	2 (2.56%)
Hungary	2 (1.31%)	0 (0%)
Italy	2 (1.31%)	1 (1.28%)
Lithuania	2 (1.31%)	0 (0%)
Poland	49 (32.03%)	28 (35.90%)
Portugal	32 (20.92%)	21 (26.92%)
Slovenia	3 (1.96%)	2 (2.56%)
Spain	26 (16.99%)	4 (5.13%)
United Kingdom	4 (2.61%)	2 (2.56%)
Other: Ireland, China, Turkey, France, Norway, India,	7 (4.58%)	5 (6.41%)
Mexico		

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Data analysis

In terms of the quantitative data, a descriptive analysis of data based on frequencies and percentage was conducted using SPSS v25. It focused on examining participants' beliefs concerning sexual and gender diversity alongside their responses to potential instances of anti-LGBT violence.

Ethical considerations

Prior to the course starting, participants were informed via an initial message that the information gathered by means of the questionnaires would be used for research purposes only in compliance with the basic principles of anonymity, confidentiality and consent. In the analysis that followed all the data was anonymised.

Results

Beliefs regarding sexual and gender diversity

LGBT+ Children and Young People's Rights

Table 2 shows that, in response to the statement "LGBT+ children and young people should have the same rights as any other child or young person", those enrolled in the course were at the outset very supportive of the rights of LGBT+ children and young people (94.2% of those enrolled responded "strongly agree"). Upon completion of the course, this support increased slightly (97.2% responded "strongly agree"). Some minor differences in respondents' attitudes according to age, as well as sexual orientation, were noted. Heterosexual participants were less likely to "strongly agree" with respect to support for the rights of LGBT+ children at the beginning of the course (92.1%) than the LGBT+ participants (100%). No significant difference between responses to the statement "Creating an inclusive environment is important for LGBTI children and young people" were noted between the beginning and the end of the course. Nevertheless, after completion, no "disagree" responses were noted.

Table 2: LGBTI+ children and young people should have the same rights as any other child or young person

	Initial participants				Final participants					
	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree
	0	0	1 (0.6%)	8 (5.2%)	146 (94.2%)	0	0	0	2 (2.5%)	79 (97.5%)
Age										
19-29				6 (7.5%)	74 (92.5%)				1 (2.5%)	39 (97.5%)
30-39				1 (2.1%)	46 (97.9%)				1 (4%)	24 (96%)
40-49			1 (4.3%)	1 (4.3%)	21 (91.3%)					12 (100%)
50-59					5 (100%)					3 (100%)
Sexual orientation										
Heterosexual			1 (1.6%)	4 (6.3%)	58 (92.1%)				1 (2.7%)	36 (97.3%)
Bisexual					23 (100%)				1 (8.3%)	11 (91.7%)
Lesbian					21 (100%)					10 (100%)
Gay				1 (5.3%)	18 (94.7%)					7 (100%)
Pansexual				1 (6.3%)	15 (93.8%)					9 (100%)
Asexual				1 (33.3%)	2 (66.7%)					3 (100%)
Other					7 (100%)					1 (100%)
I'd rather not say					5 (100%)					2 (100%)

Gender identity

Man		1 (4.3%)	22 (95.7%)		12 (100%)
Woman	1 (0.9%)	5 (4.3%)	111 (94.9%)	2 (3.2%)	61 (96.8%)
Non-binary		2 (16.7%)	10 (83.3%)		3 (100%)
Other			4 (100%)		2 (100%)
Rather not say			1 (100%)		1 (100%)

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Public policies for the inclusion of sexual and gender diversity for children and young people

In terms of public policy (Table 3), the majority of participants who started the course showed strong support for inclusion, with almost all of the answers concentrated between "agree" (10.3%) and "strongly agree" (87.7%). The assessments were even more positive among those who completed the course, with "strongly agree" comprising 93.8% of the responses received at this stage. In relation to gender, those who identified themselves as men, non-binary, or who responded "other" and "rather not say" at the beginning of the course, were the most likely to "strongly agree" with the statement regarding inclusion, exceeding 91% in all cases. Among those participants who identified themselves as women, 86.3% initially responded "strongly agree". This increased to a similar level to other categories of self-identification by the end of the course, with 95.2% of those identifying as women responding "strongly agree".

Social interactions in academic and family environments

Generally speaking, when participants were asked whether they believed that the fact that a teacher was gay/lesbian/bisexual, transgender or intersex (Table 4) did not constitute a problem for children's development, the majority of those who began the course indicated that they "strongly agreed". Nevertheless, there were slight differences depending on whether the teacher was gay/lesbian/bisexual (93.5% "strongly agree"), transgender (91%) or intersex (90.3%). Among those who completed the course, the percentages were almost equal between gay/lesbian/bisexual (93.9%), transgender (93.8%) and intersex (93.8%). No significant differences were identified in relation to the age, sexual orientation, gender or profession of the respondents in terms of responses to this statement. When asked about transgender or intersex teachers, heterosexual respondents were most likely to hold more conservative attitudes, both at the beginning and at the end of the course.

When asked whether "LGBTI+ children and young people should be supported and accepted by their families and others important to them", respondents tended to "agree" and "strongly agree" both at the beginning and at the end of the course (Appendix 1). Those who responded "strongly agree" increased from an initial 94.2% to 97.5% by the end of the course.

Table 3: LGBTI+ children and young people should be protected by public policies

	Initial participants					Final participants				
	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree
	2 (1.3%)		1 (0.6%)	16 (10.3%)	136 (87.7%)			1 (1.2%)	4 (4.9%)	76 (93.8%)
Age										
19-29	1 (1.3%)		1 (1.3%)	9 (11.3%)	69 (86.3%)				3 (7.5%)	37 (92.5%)
30-39	1 (2.1%)			2 (4.3%)	44 (93.6%)				1 (4%)	24 (96%)
40-49				5 (21.7%)	18 (78.3%)			1 (8.3%)		11 (91.7%)
50-59					5 (100%)					3 (100%)
Sexual orientation										
Heterosexual				12 (19%)	51 (81%)			1 (2.7%)	2 (5.4%)	34 (91.9%)
Bisexual	1 (4.3%)				22 (95.7%)					11 (100%)
Lesbian	1 (4.8%)			2 (9.5%)	18 (85.7%)					10 (100%)
Gay					19 (100%)					7 (100%)
Pansexual			1 (6.3%)		15 (93.8%)				1 (10%)	9 (90%)
Asexual				1 (3.3%)	2 (66.7%)				1 (33.3%)	2 (66.7%)
Other				1 (14.3%)	6 (85.7%)					1 (100%)
I'd rather not say					5 (100%)					2 (100%)

Gender identity					
Man			2 (8.7%)	21 (91.3%)	1 (8.3%) 11 (91.7%)
Woman	2 (1.7%)		14 (12%)	101 (86.3%)	1 (1.6%) 2 (3.2%) 59 (95.2%)
Non-binary		1 (8.3%)		11 (91.7%)	1 (25%) 3 (75%)
Other				4 (100%)	2 (100%)
Rather not say				1 (100%)	1 (100%)

Table 4: Having a gay/lesbian/bisexual, transgender or intersex teacher is not a problem for children's development

	Initial participants					Final participants				
	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree
Having a gay/lesbian/bisexual teacher is not a problem for children's development		1 (0.6%)		9 (5.8%)	145 (93.5%)	1 (1.2%)	1 (1.2%)		3 (3.7%)	77 (93.9%)
Having a transgender teacher is not a problem for children's development		1 (0.6%)		13 (8.4%)	141 (91%)	1 (1.3%)			4 (5%)	75 (93.8%)
Having an intersex teacher is not a problem for children's development		1 (0.6%)		14 (9%)	140 (90.3%)		1 (1.2%)		4 (4.9%)	76 (93.8%)

Reactions to possible situations of anti-LGBT violence

Participants were asked how they would react to certain hypothetical situations of anti-LGBTI+ violence, responding according to a Likert scale ranging from "strongly disagree" to "strongly agree", including the option of answering "I don't know". The questions were structured according to three contexts of socialisation: among peers, within the family and in social networks.

Reactions to peer-to-peer violence affecting LGBT+ children.

When presented with the statement "If I saw a male child being insulted for acting in what might be traditionally considered a feminine manner, I would intervene and report the incident" (table 5), participants were more likely to "strongly agree" after the course (79%) than before it (65.6%). Generally speaking, those who identified as lesbian, gay or bisexual were more willing to actively intervene than heterosexual people, both at the beginning and at the end of the course. Nevertheless, it is worth highlighting the lower percentage of gay people (63.2% "strongly agree") who at the beginning of the MOOC reported a willingness to intervene in comparison to lesbian (71.4% "strongly agree") and bisexual people (73.9% "strongly agree"). Similar changes between the beginning and end of the course were identified across the board in terms of participants' professional backgrounds, except in the case of those working in "media and networks". However, the number of respondents in this category was too small to be able to draw any solid conclusions.

Reactions when the family fails to support or rejects a child because they are LGBT+

In terms of participants' attitudes to family support (Appendix 2), the results do not show any major difference between initial and the final surveys. Generally, participants responded "strongly agree" both at the beginning (85.8%) and at the end (87.7%) of the course when asked if they would help a relative seeking support in revealing their sexual orientation and/or gender identity to their family. However, given the opportunity to actively reproach a family for having rejected an LGBTI+ child (Table 6), responses were significantly more varied across all age groups, sexual orientations, gender identities and professional backgrounds. This being the case, and while at the end of the course the percentages of those who responded "strongly agree" tended to be greater, they were far from the majority, as shown in table 10.

Reactions to negative comments made against LGBTI+ people on social media

Presented with the following situation "If I saw a comment against LGBTI+ people on social media, I would immediately report the content, or speak out against the message" (Appendix 3), responses varied, although largely concentrated in the range from "agree" (27.7% at the beginning of the course, and 27.5% at the end) to "strongly agree" (62.6% at the beginning, and 70% at the end), this being more favourable than the response to other unsupportive practices, such as supportive provided by family members (Table 6). Likewise, participants responded "I don't know" in greater numbers than when asked about how they would react in non-virtual situations.

Table 5: If I saw a male child being insulted for acting in what might be traditionally considered a feminine manner, I would intervene and report the incident

	Initial Participants				Final Participants					
	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree
	9 (5.8%)		1 (0.6%)	43 (27.9%)	101 (65.6%)	2 (2.5%)	1 (1.2%)	1 (1.2%)	13 (16%)	64 (79%)
Age										
19-29	5 (6.3%)		1 (1.3%)	27 (33.8%)	47 (58.8%)	1 (2.4%)		1 (2.4%)	5 (12.2%)	34 (82.9%)
30-39	4 (8.7%)			11 (23.9%)	31 (67.4%)		1 (4%)		5 (20%)	19 (76%)
40-49				5 (21.7%)	18 (78.3%)				2 (16.7%)	10 (83.3%)
50-59					5 (100%)	1 (33.3%)			1 (33.3%)	1 (33.3%)
Sexual orientation										
Heterosexual	3 (4.8%)			19 (30.6%)	40 (64.5%)	1 (2.7%)			8 (21.6%)	28 (75.7%)
Bisexual			1 (4.3%)	5 (21.7%)	17 (73.9%)	1 (8.3%)		1 (8.3%)		10 (83.3%)
Lesbian	2 (9.5%)			4 (19%)	15 (71.4%)				1 (10%)	9 (90%)
Gay				7 (36.8%)	12 (63.2%)					7 (100%)
Pansexual	2 (12.5%)			4 (25%)	10 (62.5%)				3 (30%)	7 (70%)
Asexual	1			2			1		1	1

Other	(33.3%)		(66.7%)		(33.3%)	(33.3%)	(33.3%)
			2	5			1 (100%)
			(28.6%)	(71.4%)			
I'd rather not say	1 (20%)			4 (80%)			2 (100%)
Gender identity							
Man	2 (8.7%)		4	17	1 (8.3%)	1 (8.3%)	10
			(17.4%)	(73.9%)			(83.3%)
Woman	5 (4.3%)	1 (0.9%)	34	76	2 (3.2%)	1 (1.6%)	10
			(29.3%)	(65.5%)			(15.9%)
Non-binary	1 (8.3%)		3 (25%)	8		1 (25%)	3 (75%)
				(66.7%)			
Other			2 (50%)	2 (50%)		1 (50%)	1 (50%)
Rather not say	1 (100%)						1 (100%)

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Table 6: If a child was rejected by their family for being LGBTI+, I would reproach the family for their attitude

	Initial participants					Final participants				
	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree	I don't know	Strongly Disagree	Disagree	Agree	Strongly Agree
	10 (6.5%)	1 (0.6%)	19 (12.3%)	52 (33.5%)	73 (47.1%)	4 (4.9%)		12 (14.8%)	25 (30.9%)	40 (49.4%)
Age										
19-29	1 (1.3%)	1 (1.3%)	9 (11.3%)	29 (36.3%)	40 (50%)	1 (2.4%)		3 (7.3%)	13 (31.7%)	24 (58.5%)
30-39	4 (8.5%)		6 (12.8%)	14 (29.8%)	23 (48.9%)	2 (8%)		5 (20%)	6 (24%)	12 (48%)
40-49	4 (17.4%)		3 (13%)	7 (30.4%)	9 (39.1%)	1 (8.3%)		2 (16.7%)	6 (50%)	3 (25%)
50-59	1 (20%)		1 (20%)	2 (40%)	1 (20%)			2 (66.7%)		1 (33.3%)
Sexual orientation										
Heterosexual	5 (7.9%)	1 (1.6%)	9 (14.3%)	24 (38.1%)	24 (38.1%)	2 (5.4%)		7 (18.9%)	14 (37.8%)	14 (27.8%)
Bisexual			2 (8.7%)	4 (17.4%)	17 (73.9%)			1 (8.3%)	4 (33.3%)	7 (58.3%)
Lesbian	1 (4.8%)		2 (9.5%)	10 (47.6%)	8 (38.1%)	1 (10%)		1 (10%)	4 (40%)	4 (40%)
Gay	1 (5.3%)		2 (10.5%)	9 (47.4%)	7 (36.8%)			3 (42.9%)	1 (14.3%)	3 (42.9%)
Pansexual	1 (6.3%)		3 (18.8%)	3 (18.8%)	9 (56.3%)	1 (10%)				9 (90%)
Asexual			1 (33.3%)		2 (66.7%)				1 (33.3%)	2 (66.7%)

Other			3 (42.9%)	4 (57.1%)				1 (100%)
I'd rather not say	2 (40%)				3 (60%)			2 (100%)
Gender identity								
Man	2 (8.7%)		4 (17.4%)	7 (30.4%)	10 (43.5%)	2 (16.7%)	3 (25%)	3 (25%) 4 (33.3%)
Woman	7 (6%)	1 (0.9%)	13 (11.1%)	39 (33.3%)	57 (48.7%)	2 (3.2%)	8 (12.7%)	20 (31.7%) 22 (52.4%)
Non-binary			2 (16.7%)	4 (33.3%)	6 (50%)		1 (25%)	1 (25%) 2 (50%)
Other				3 (75%)	1 (25%)			1 (50%) 1 (50%)
Rather not say	1 (100%)							1 (100%)

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Discussion

As above, we will structure our discussion around two main themes: (i) beliefs regarding sexual and gender diversity, and (ii) reactions to possible situations of anti-LGBTI+ violence.

Beliefs regarding sexual and gender diversity

Generally speaking, while those who began the course already showed strong support for expressions of sexuality and gender diversity, those who finished the course showed even greater support, with the percentage of those who responded “strongly agree” increasing across the majority of questions. This suggests that a course of this nature can contribute to increasing awareness of sexuality and gender diversity, and it would appear that it does so precisely for those people who already show a particular interest in the subject. This leaves open the question of what influenced the decision – and for what reason – of those who chose to abandon the course, as well as those who, having received the necessary information, decided not to register.

It is, of course, important to note that although the positions of heterosexual people tended to be more conservative at the beginning of the course, by the end of the course their views were broadly aligned with those of LGBTI+ people. As such, regardless of the gender identity or sexual orientation of each subject, training on diversity can be seen as having contributed to improvements in the attitudes of the entire group of people who participated in the MOOC.

As previously indicated, although the results of the survey taken after the MOOC show more consolidated positions in favour of sexuality and gender diversity, participants already began from a general position of support. By way of example, those who responded favourably to the statement “LGBTI+ children and young people should have the same rights as any other child or young person” represented 99.4% of responses at the beginning of the course, and 100% of responses to the end-of-course survey. However, if we compare this data with data from the Eurobarometer on the social acceptance of LGBTI people in the EU (2019), we can see that those who agree with the same statement only represent 76% of the total. While it is true that, for our research, we asked specifically about children – in the case of the Eurobarometer, the question related to LGBTI people in general – it is nevertheless interesting to note the difference between those who chose to participate in a training course (as in the case of the MOOC) and those who simply responded to a survey (Eurobarometer case).

A course of this nature tends to interest, broadly speaking, those with pre-existing awareness of sexuality and gender diversity and associated problems, as the data regarding participants’ beliefs at the outset of the course would appear to show. To this effect, we might say that it is those with greater prior knowledge and interest in the subject, and not those who perhaps need it most – including professionals working with children and who ought to have the necessary skills to support LGBTI+ children and young people – who undertake training on the issue. This is especially important if we consider that existing training curricula in nursing (Lim, Johnson and Eliason 2015), teaching (Jennings 2012), social work (Álvarez-Bernardo, Garcia-Berbén, and Lara-Garrido 2022; Bragg, Havig, and Muñoz 2018) and medicine (McGlynn et.al. 2020) rarely (if ever) include sexuality and gender diversity as obligatory subjects at university level.

Similarly, it is worth noting that the majority of those who decided to start the course identified as women (75.16%), while men accounted for only 14%. The majority of these women were heterosexual, while among men, those who identified as gay predominated. From these percentages, but bearing in mind the limitations of this study, it is possible to draw the tentative conclusion that women (regardless of their sexual orientation) are those who are most interested in learning about issues related to sexuality and gender diversity. For men, being gay would appear the factor that most influences participation in training, perhaps given their shared experience of some the issues raised in our MOOC. The data presented in Cavanase (2020) would appear to support this view.

Likewise, education and health professionals participated in proportionally greater numbers, while those working in law enforcement, the media and family support were under-represented. This may be indicative of how professional background determines interest, although it may also be the case that awareness was not raised equally across professional sectors, as well as among people over 40 years of age. It is also clear that the course was undertaken mainly by those who already had undergraduate and postgraduate degrees.

Reactions to possible situations of anti-LGBTI+ violence

Participants, both before and after the course, concurred that the family ought to be an important source of support – and of equal importance to peer support networks – in cases of anti-LGBTI + violence. This indicates a belief from the outset – prior to the MOOC – in the importance of family and peers in providing support in the face of any violence that children and young people may suffer.

Nevertheless, it is interesting to note that in response to the statement “If I saw a male child being insulted for acting in what might be traditionally considered a feminine manner, I would intervene and report the incident” (Table 5), the percentage of respondents who totally agreed was lower than in the case of any other question. This may be the result of what Morrison and Morrison (2002) call “modern homonegativity”, in reference to the more subtle beliefs and attitudes that normalise verbal aggression. Likewise, in response to the question “If a child was rejected by their family for being LGBTI+, I would reproach the family for their attitude”, respondents were significantly less likely to strongly agree compared to other questions in the same section. This leads us to consider that, in addition to meeting the needs of children and young people, those working with children must also develop skills in addressing matters of sexuality and gender with family members.

Further to this, strength of feeling in response to online violence was reduced both before and after training. It is not known if this can be attributed to a lack of knowledge among participants about how to report hate speech online, or if, for them, it was a question of whether to do so or not. Further exploration would therefore appear required, in addition to more extensive education and training in responsive strategies to combat anti-LGBTI+ violence online, especially in the current context where social networks are one of the main arenas of violence against LGBTI+ youth (Simangele, Reema, and Nirmala 2020).

In the section concerning beliefs regarding sexuality and gender diversity, participants tended to be clear as to their agreement or disagreement with each

statement, with very few answering "I don't know". When assessing their reactions to possible situations of anti-LGBTI+ violence in which they might be expected to intervene, participants responded "I don't know" in greater numbers. This leads us to consider that, while participants clearly manifest their beliefs, they are more reticent when it comes to taking action and need additional tools to deal with violence in a decisive way.

Limitations and implications of this research

Like all studies, this one had its limitations. The MOOC on which this study is based was provided in English, while the majority of those who participated in the MOOC came from countries where English was not an official language: this may have resulted in reaching a specific type of participant. By the same token, it is possible that participants encountered some difficulties in comprehension when responding to the survey, given that it was not formulated in their mother tongue. In addition, the study did not enquire as to students' motivation for participating in the course. This data would have been valuable as a complement to the analysis and the conclusions drawn from it.

The sample of participants indicates a high participation of education and health professionals, people under 40 years of age, Master's level students, and those with university degrees. It is possible that these are the professionals or profiles most directly involved in these issues; however, the fact that the course had a lesser reach among other groups may be due to a lack of use of the appropriate resources to promote the course among those groups who participated in lesser numbers. Likewise, it could be considered that offering the course in a non-native language may have been a decisive factor in potential participants choosing not to sign up.

Conclusions

Well designed and evaluated MOOCs can support a wide range of flexible and self-managed training, and can help in developing the digital skills of students. In the areas of sexuality and gender, they can serve as an excellent complement to any education and training stipulated in the curriculum of the official study programmes for child care professionals. However, they should not be used as the principal channel for training in sexual and gender diversity for professionals in child and youth care, since – as our research shows – existing support for sexual and gender diversity was significant in influencing participation in the course. Given that all professionals should have the cultural skills needed to provide adequate support for sexuality and gender diversity in childhood, higher education centres should offer all students whose courses are related to childhood (teaching and pedagogy, social work, psychology, etc.) specific training in sexual and gender diversity to ensure that basic skills are consolidated in the early stages of professional development, with complementary training provided later for specialisation.

The results of the research suggest that it is necessary to provide professionals with better practical tools for supporting LGBTI+ children and young people, insofar as holding attitudes or beliefs favourable to sexual and gender diversity does not guarantee that professionals have the necessary skills to provide practical support or appropriately handle situations of violence affecting children or LGBTI+ young people.

Training in sexual and gender diversity for professionals working with children requires a holistic approach that covers both higher education and professional development. In this way, and as other research has shown (see Rincón-Flores et al., 2020), training programmes of this nature can consolidate the skills of professionals working with children, enabling them to put perspectives on sexuality and gender diversity into practice. They can also help develop new lines of research concerning MOOCs (Daniel et al. 2015). Nevertheless, skills-building must be intensified in early training for a future health and education professionals anticipating a career in work with children and young people.

Disclosure of potential conflicts of interest

The authors have no competing interests to declare.

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