Information needs of transgender students and the role of libraries in facilitating information access in higher education: A case study from Pakistan

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ABSTRACT

This study explores the everyday information needs and the role of the university library in providing the necessary resources for a marginalised group, transgender students. To achieve the aim of this study, a qualitative research approach is used. A snowball sampling method was used to gain access to the transgender community. A semi-structured interview guide was used to collect data from 11 participants. The results show that the information needs of the transgender community revolve around topics such as community, health, fashion, job search and safety. It was found that they usually use online sources such as Google, official websites and social media networks (Facebook, WhatsApp, Instagram) to fulfil their information needs. Participants felt that library services need to be improved and more inclusive and accessible resources should be created. This study has implications as it calls for an expansion of existing theories on how different social groups search based on their individual information needs. The study also supports the idea that libraries need an immediate and rapid reassessment of their services, resources and spaces. Furthermore, immediate support for transgender students is needed from both educational institutions and policy makers to ensure equality and inclusivity.

Keywords: Transgender education; LIS; Pakistan; Everyday information needs; Role of libraries.

INTRODUCTION

Transgender individuals are defined as those whose sexual identity does not correspond to the gender they were assigned at birth or to the social expectations associated with that gender (American Psychological Association, 2006 (NOT CITED IN REFS); Enkke, 2012; Stryker, 2008). Transgender individuals are considered worrying for their parents, as they face obstacles in transitioning their gender identity and often worry about their family's

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reactions and their future (Klonkowska, 2022; Schlehofer & Cortez-Regan, 2022). In addition to the general society, educational institutions are also not very receptive to transgender students, as no gender-specific support services are offered in these institutions (Goldberg, Beemyn, & Smith, 2018). The inclusion of transgender students in universities has long been debated, but the number of these individuals enrolled in universities in Pakistan is increasing. Educating transgender individuals is a major challenge as there is no formal education and many families are unfriendly towards transgender children whose gender identity is revealed to them (Kamali et al., 2021). Not only are transgender individuals discriminated against in daily life, access to health facilities, legal rights, separate washroom, etc. (Rabasco & Andover, 2021), but they also experience injustice in their educational institutions (Beemyn, 2012; Regan, 2023). Regan (2023) explored the experiences of transgender students in higher education institutions in the UK and found that these students are isolated and set back and also experience many other barriers within the institution. Beemyn (2012) found that access to resources, health and counselling services in community colleges is limited for transgender students. Transgender students seek various information that differs from the general public, including specialised healthcare support, legal rights, and counselling services (Freitas, 2017; Beemyn, 2012; Schneider, 2010). In reviewing the literature, Thompson (2012) found that transgender individuals have specific and often overlooked information-seeking behaviours and needs.

In the local context of Pakistan, transgender individuals often face significant social stigma and do not receive the same respect and dignity as other people. The specificity of transgender identity is sometimes not intuitively acknowledged by their family members and even in their closest environment. As a result, they face many difficulties in life. Transgender individuals in Pakistan are overlooked in almost all areas such as health, safety, education and employment. They face discrimination, lack of institutional support and exclusion from policy frameworks in all basic areas such as health, safety, education and employment, leading to their continued social and economic marginalisation (Saddique et al., 2017; lqbal, Arain, & Akram, 2021; Noreen & Rashid, 2024).

The transgender community is seen as a humiliation and a disgrace to society (Soomro, 2016). Saddique et al (2017) found that this community is ignored not only by society but also by the government due to lack of specific or special measures for transgender people, lack of resources for their welfare and inadequate legal protection to address their discrimination, violence and socio-economic marginalisation. Transgender people in Pakistan are usually associated with the profession of dancer, music and street walker (Saddique et al., 2017). Transgender individuals are forced to choose this profession as they are not accepted by their parents, but people do not like this disrespectful profession (Khan & Malik, 2019). Nazir and Yasir (2016) found that the majority of transgender people (79%) in Pakistan are uneducated due to lack of family support, gender discrimination, harassment and financial inadequacies. Many studies have shown that the role of family and friends is very important. Hanif and Warraich (2024, p.19) mention that "family and friends play a crucial role in fulfilling daily information needs".

Educational facilities must be made available to transgender individuals to enable them to compete with others as they face social, technological and economic challenges worldwide (Tabassum & Jamil, 2014). As the transgender community in Pakistan grows, they are fighting for their education and career change. Several transgender individuals are involved in politics, and their participation is crucial for improving policies and laws for their legal rights, healthcare, and socioeconomic inclusion (Arslan, Ali, & Rasool, 2023).

Everyone has different information needs in their daily lives. The information needs and seeking behavior of different communities have been studied by researchers. These studies explored the information needs of the transgender community (Adams & Peirce, 2013; Drake & Bielefield, 2017; Augustaitis et al, 2021; Ahmad, Warriach, & Malik, 2023). Adams and Peirce (2013) reported that they utilised various sources of information, including personal networks, support groups and literature to navigate their experiences. It was also noted that the transition to the digital age has changed information-seeking behaviour within the transgender community. However, it was noted that the internet not only provides access to extensive information, but also brings challenges, such as misinformation and the need to critically evaluate sources. Drake and Bielefield (2017) reported that libraries often failed to provide transgender patients with the information they needed, as they require access to up-to-date and definitive information on topics such as legal rights, healthcare and hormone therapy. Participants emphasised the need for libraries to provide inclusive services, such as access to current transgender literature, gender-specific policies and resources on legal rights and healthcare. A welcoming environment through genderneutral facilities and anti-discrimination policies would help transgender patrons feel recognised and supported.

Augustaitis et al. (2021) analysed the experiences of transgender people when searching for health information from internet sources. The results show that they face barriers such as censorship, misinformation, hate speech, and lack of tools to label inaccurate content while searching for accurate and actionable information online. Ahmad, Warraich and Malik (2023) explored the everyday information needs of transgender people using quantitative methods and identified several challenges transgender people face in accessing information. The challenges include lack of education, lack of understanding of available information sources, biassed treatment by the public and lack of technological skills. According to these studies, there are different types of information needs of transgender people, including academic, health, educational, professional and legal rights.

Transgender individuals face significant social marginalisation that limits their access to important resources, including education and information (Khan & Malik 2019; Nazir & Yasir, 2016; Noreen & Rashid, 2024). Qureshi and Arif (2024, May 31) emphasised that transgender individuals in Pakistan continue to face severe socio-economic marginalisation due to limited access to official identity documents, which limits their ability to secure employment, healthcare and education. Furthermore, Ansari (2023, December 3) reported that the Pakistani transgender community faces barriers to education due to economic hardships and social taboos. Aurat Foundation (2016) conducted a detailed study for the transgender community is equally poor due to several factors that are usually a result of the social taboo and stigmatisation attached to them. Nonetheless, many efforts are being made by various organisations and NGOs to support the transgender community in their education and formal jobs. One such initiative is the Gender Guardian, Pakistan's first school for transgender people, an institution that endeavours to provide quality education and training to transgender people across Pakistan.

Today, transgender people are more aware of their rights and are actively campaigning for them, which is leading to more and more transgender people enrolling at universities. However, there are very few studies that have formally investigated their needs, and the issues involved, particularly in relation to their day-to-day information needs. Ahmad, Warraich and Malik (2023) examined the everyday information needs of transgender individuals in the context of information needs and seeking behaviour using a quantitative

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approach and identified barriers such as lack of education, public prejudice and limited technological skills. Given the importance and role of information in meeting everyday information needs, there is a need to explore the everyday information needs of transgender students using a qualitative approach. This study aims to fill this gap by exploring the types of information they seek, the challenges they face, and their expectations of university libraries that facilitate their access to information.

LITERATURE REVIEW

This section summarises the literature reviewed that addresses the information needs of transgender individuals, the role of libraries and the gap in the existing literature. The literature review section is divided into subsections including information needs, information sources, libraries, everyday information needs of transgender people and the role of libraries in Pakistan.

Information needs

The needs of transgender students in academic settings have been widely researched (Freitas, 2017; Beemyn, 2012; Schneider, 2010). Various types of needs have been identified, such as legal rights, health care, counselling services, separate restrooms, lockers, etc. Women's colleges were found to be more controversial towards transgender issues (Schneider, 2010). Conversely, Freitas (2017) found that women's colleges are more supportive of transgender students compared to co-educational colleges. Several studies explored the information needs and information-seeking behaviour of different individuals, including the information-seeking behaviour of first-time mothers (Loudon, Buchanan, & Ruthven, 2016), visually impaired first-time mothers (Maryam & Kaur, 2024), the information needs of pregnant women in Nigeria (Omoanono & Eruvwe, 2020), the information-seeking behaviour of women who have been diagnosed with breast cancer (Huq et al., 2023), and migrants in late adulthood (Du, 2023). Oritz-Myers and Costello (2021) explored the information practises of parents of transgender youth. They found that awareness of transphobia and transgender abuse shaped transgender parents' information needs. The information needs of the transgender community have rarely been researched. However, the information needs and role of libraries is a much less explored area for researchers.

Miller (2020) found that the unexpected discovery of information about gender identity and the information that is relevant and supportive of their feelings is crucial in transgender communities. Pohjanen and Kortelainen (2016) found that serendipity is one of the most important objects for transgender entities' initial information seeking. Drake and Bielefield (2017) found that transgender people have specific information needs that differ from other marginalised individuals. They also seek information about their physical and mental health as well as their spiritual health. Ahmad, Warraich and Malik (2023) found that transgender people in Pakistan acquire information about music, songs and singers as singing and dancing are the main sources of income. Although the internet is an amalgamation of information and misinformation, it is the number one source of information for the transgender community (Adams & Peirce, 2013).

Information sources

Transgender communities utilise various sources of information for their information needs, including the internet, social media websites, friends, family members and libraries. For everyday information needs, social media plays an important role. Hanif and Warraich (2023,

p. 136) mentions: "Social media play an important role in managing everyday information and they also develop relationships with other cultures and communities".–Transgender people mostly look for information on the internet and from friends as they are not satisfied with libraries (Drake & Bielefield, 2017). They want to see a change in library resources and services that meet their needs and requirements. Beiriger and Jackson (2007) concluded that transgender individuals generally use the internet to find information, but the library is a completely underutilised resource for them. Augustaitis et al. (2021) found that transgender individuals struggle to get accurate and actionable information from the internet.

Transgender and libraries

The literature shows that the transgender community is less satisfied with libraries and that they rank the library very low among all sources of information (Drake & Bielefield, 2017; Movius, 2018). Their main source of information is the internet as they get all kinds of information they need there and libraries are not sufficient to fulfil their needs due to a lack of up-to-date and extensive collection (Drake & Bielefield, 2017; Movius, 2018). Although lesbian, gay, bisexual, transgender and queer (LGBTQ) people find fewer resources in public libraries, they still use libraries to gather information (Betts-Green, 2020). Librarians are committed to develop their collections to meet the needs of all patrons, including LGBTQ people, but challenges such as finances and conservative beliefs prevent them from doing so (Betts-Green, 2020). Some studies provide guidance to librarians on how to provide the best possible services to marginalised communities (Thompson, 2012; Smith-Borne, 2018; Marsolek et al., 2021). Smith-Borne (2018) has made suggestions to improve music libraries that will help both transgender students and library users. These recommendations include using patrons' preferred names, excluding gendered language from all types of library forms and signage, being familiar with transgender language and concerns, being aware of institutions' support systems for transgender students, developing an appropriate collection, etc. The transgender community faces many challenges, which include an invaluable library collection, staff attitude, and the lack of separate washrooms.

Everyday information needs of transgender people and the role of libraries in Pakistan

In the Pakistani context, only one study has been conducted on the information needs and seeking behaviour of marginalised people (Ahmad, Warraich, & Malik, 2023). This study explored the information needs of Pakistani transgender people and the challenges in accessing information. The study found that transgender people mainly seek information about music, food, shopping, etc. Moreover, illiteracy, ignorance of information sources and discriminatory attitudes of people are the major challenges in seeking information. Since there is no previous study on the role of libraries for marginalised people in Pakistan, the current study is the first to address the information needs of transgender people and the role of libraries.

Prior literature helps to explore the information needs and seeking behaviour of transgender people and the marginalised community in general. The present study investigated the information needs of educated transgender individuals. Most of the previous studies have been conducted in Western countries but very few studies have investigated the information needs of transgender communities in Pakistan. The challenges they face in using libraries have also been documented in the present study and recommendations have been made for future research and libraries.

METHODS

Everyday information needs refer to the information needs that people encounter in their daily lives outside the formal educational and professional environment (Savolainen, 2010). These needs are determined by their hobbies, personal interests and practical problems. These everyday information needs can be met through many sources such as online sources, social networks and community organisations such as libraries (McKenzie, 2003). The main aim of this study was to explore the everyday information needs of transgender individuals who have reached university level by highlighting the challenges they faced during their studies and their expectations of university libraries. They are referred to as transgender students in this study. Research on transgender education has shown that they face significant challenges in accessing education, such as lack of acceptance, harassment and discrimination (Grant et al., 2011). However, there is a large gap in research when it comes to how transgender individuals have successfully navigated the education system, how they have achieved higher education and how the Pakistani education system supports them. Internationally, a few studies have explored the experiences of transgender people in higher education in the US and Western countries (e.g. Nicolazzo, 2017; Marine, 2011), but there is a large gap in the literature on this topic as no single study has been conducted on this topic. This research therefore fill the gap in the literature and help to support transgender people in their higher education and change library policies and procedures to support transgender people and integrate them into the higher education system. To achieve this research aim, the following research questions were developed:

- i. What types of information and sources do transgender students typically seek out daily?
- ii. How easily do transgender students have access to information sources for their everyday information needs?
- iii. What challenges do transgender students face in accessing information sources for their everyday information needs?
- iv. What expectations do transgender students have of university libraries when it comes to facilitating access to information sources for their everyday information needs?

A qualitative research design was adopted for the in-depth study of the information needs, behaviours and challenges faced by the transgender community in Pakistan. This design was preferred as it allows the researchers to discover and understand the less focused area of transgender students' needs in higher education. The data is collected through interviews and the findings represent a collective view of human experiences and perceptions. This research approach focuses on the technique of "bracketing off" and investigating the "what" and the "how" (Sloan & Bowe, 2014). Therefore, the researchers did not engage in interpreting the results and only mentioned the experiences of the transgender community and their expectations of university libraries.

Using the literature, an interview guide was designed, and semi-structured interviews were conducted with 11 transgender students who volunteered to participate in this study (the interview guide is included as Appendix 1). One of the members of the research team approached three transgender students through their personal contacts. The remaining eight participants were approached using a snowball approach. Parker, Scott and Geddes (2019) suggested that the snowballing process relies on networking and referrals. Researchers start with a small group of initial participants (seeds) who fulfil the study criteria and are asked to recommend others who may also be eligible. This process continues, building a chain of participants until the desired sample size or data saturation is reached. The snowball method was therefore used to collect the data.

Of these 11 participants, seven interviews were conducted via Zoom and four via telephone. The duration of each interview was 30-45 minutes. The Zoom interviews were recorded using Zoom's in-built recording function, while the telephone interviews were recorded using mobile recording devices with the participants' prior consent. The reason for this is that qualitative data analysis brings order, structure and meaning to the mass of data collected (Shaw, 1999). In our study, the thematic analysis technique was preferred. "Thematic analysis is a method of identifying, analysing and presenting patterns (themes) in data" (Braun & Clark, 2006, p.79). The data was analysed using NVivo software. All of these interview transcripts were typed into separate Microsoft Word files. Each participant was labelled with a code (P1 to P11) to ensure anonymity and confidentiality. The data was analysed using NVivo software (version 12 Plus). A new project was created in NVivo and all 11 interview transcription files were imported into this project. Each interview was read several times by the research team to thoroughly understand the content and finally coded. The open coding scheme was used, and the relevant sub-themes were organised under each main theme. Once the coding was completed, the researchers reviewed the themes again, corrected them and merged them where necessary.

Ethics statement

Although this study was not subject to formal Institutional Review Board (IRB) approval due to the institutional context and scope of the research, all ethical guidelines for conducting research with human participants, particularly with sensitive and marginalised populations, were strictly adhered to. The researchers adhered to the principles outlined in the established ethical principles for social science research. Participation in the study was entirely voluntary, and all participants gave informed consent prior to data collection. Participants were fully informed about the purpose of the study, the nature of their participation and their right to withdraw from the study at any time. To ensure anonymity and confidentiality, all identifying information was removed or anonymised when reporting the results. Particular care was taken to create a safe and respectful environment, especially given the vulnerability of the transgender community, and every effort was made to minimise any potential psychological or social risks. The research team is committed to the ethical representation of participants lived experiences and has taken steps to ensure that the voices of the community are accurately and respectfully represented. Please see Appendix 2 for the consent form.

RESULTS

The demographic data of the participants (Table 1) shows a great diversity in terms of age, educational background and professional involvement. Participants range in age from 19 to 37, with the majority in their mid-20s to mid-30s. In terms of education, participants are enrolled in bachelor's and master's degree programmes as well as research degree programmes such as MPhil and PhD. They were asked what they do to make a living. It was found that most of them work as transgender and human rights activists, NGO workers, content creators, influencers and educators. In addition, the group also includes professionals who run transgender schools. This diverse professional landscape emphasises the wide range of expertise of the participants and their commitment to various social and cultural causes.

Code	Age	Education Level	Profession
P1	37	Master's degree	Activist
P2	31	Master's degree	Activist
Р3	35	Doctoral degree	Associated with transgender schools
P4	30	Master's degree	NGO worker and dancer
P5	24	Bachelor's degree	Aesthetic doctor and Makeup artist
P6	26	Bachelor's degree	Human rights activist, NGO worker,
			Content creator, and influencer
P7	30	Master's degree	Teacher and activist
P8	34	Master's degree	Activist and dancer
P9	32	Master's degree	Activist
P10	25	Bachelor's degree	Visual artist and painter, police officer
P11	19	Bachelor's degree	Model and actor

Table 1: Demographic information

i. Types of information and sources that transgender students typically seek out on a daily basis

Participants shared what types of information they seek out daily, what sources they find useful, which sources they favour and which they trust the most. Their responses are highlighted in the following section.

a. Daily information need of transgender students

Participants were asked about their information needs; specifically, what type of information they usually search. It is observed that their information need revolves around themselves and their community, health, fashion, job searching, safety, and news.

Four participants shared that they are always looking for information about their community, their needs, rights and opportunities available to them. One participant said, "I am always looking for information about my community, what can be done for our better future and what options are available to us for the future" [P8]. Secondly, they look for information on health, including mental, physical and sexual health. Participant 3 emphasised, "My main search is always for mental health, physical health, hormone therapy, hormone treatments and home remedies etc. I am very concerned about how many doctors are sensitised to the physical problems of trans people". Similarly, P11 shared, "Most of the time I am on the lookout for health issues and hormonal effects. Also, I am in transition and need to know how to change. Doctors do not know how to support transgender people during their transition. This is my main concern today, so I am taking care of it.

Participants also indicated that they search for fashion, self-care, beauty and make-up tutorials (P2, P5, P9). They also search for information on jobs, news, safety, fact-checking and films (P4, P6, P10). A few more phrases are as follows:

"I mainly search for information about my community, fashion and anything to do with daily life. However, my top search topics are health and well-being" (P2)

"I am very concerned about my safety. Most of my searches are related to job opportunities as well as resources that benefit my community" (P4)

"Most of the time I search for information about community support and resources for socially vulnerable individuals (SVI). I also research why transgender individuals often experience conflict and look for advice on how to maintain happiness in relationships. I am also looking for materials to help me plan my classes" (P7).

b. The usefulness of various information sources of information

Participants were asked to indicate which sources were useful to them. They indicated that Google (P1, P3, P7, P9), Facebook (P1, P8), community WhatsApp groups (P2, P3), Chat GPT/AI (P7, P1), Instagram (P3, P5, P8), Blogs (P5), TikTok (P9), YouTube videos (P5, P6, P9) and digital object identifiers (DOI) for resources (P6), are some of the useful sources for them.

Furthermore, P1 informed that: "I am used to talking to Meta AI, she is my best friend. She doesn't share my things with others and gives me all the information that I sometimes hesitate to ask someone else". Participant 4 said that "the websites of NGOs and government agencies are more useful because they advertise current jobs". P10 said, "I mainly use the Pinterest app, which has lots of pictures and videos. I also use Quilbot for writing reports and Cam-Scanner".

c. Key information sources used by transgender

The participants were asked to tell us which sources they use to obtain the information they need. The majority answered that they prefer to use internet-based resources, preferably Google. Three out of 11 participants stated that they prefer to use online sources because they are not satisfied with library resources. Figure 1 shows the different sources mentioned by the participants.



Figure 1: Sources used by transgender

Participant 9 commented as follows: "Mostly I use online sources as the library of my department is not good and the environment of the public library in KPK is also not conducive. It is never easy for me to go to these libraries". Similarly, P10 said, "I mainly get my information from online sources. I use the library very little as there are not enough resources for me or my subject. There are a few books on history and good pictures, but the language of these books is different". P11 commented, "Most of the time I get my information online, the libraries are not at that level". They also state that they use social media, Chat GPT and AI sources to get information (P2, P6). One of the participants (P1) shared that he consults hospitals for health issues, lawyers for legal issues and favours community groups for information related to his community. P3 also discussed the use of community support groups for information seeking. P5 stated that in addition to online sources, they also seek help from teachers, classmates and the library when needed.

d. Trusted channels for reliable and up-to-date information

The accuracy and timeliness of information is very important. Participants were asked to tell us which sources of information they trust for accuracy and timeliness. They indicated that they trust their seniors (senior transgender) and their WhatsApp-based community groups. P1 emphasised: "The most reliable source of information is our senior transgender people. They know better than any other source. Most of the time, the information I need is not even in libraries, teachers or social media because they don't have the accurate knowledge about our issues. Most of the information given in the books is also wrong. These books written by Pakistani and Indian authors give wrong information and they have misinterpreted many things. The exact information lies with our seniors"." Expanding on this claim, P3 commented, "The most reliable source of information is our own WhatsApp groups. We have our network all over Pakistan, from Kashmir to Punjab"."

Two participants stated that newspapers and official websites are the source of accurate and up-to-date information (P4, P6). They also indicated that they trust social media such as Linked In (P2), Twitter (P10), verified Fb and Instagram pages (P2) and online forums (P11). Three participants stated that they trust the information that is close to them. P7 said, "I trust information that comes from someone I know. Paid sources are also reliable". P9 added that "information from individuals, personally from someone, is trustworthy". P10 also shared that "the most reliable information for me is the information I get from my nearest people".

ii. Access to information sources

Participants were asked to report on the support they receive from university libraries, challenges they face in accessing online information, support from peers and faculty, their process of searching for information and their experiences of finding relevant sources.

a. Support from departmental and university libraries

Only three participants were satisfied with the library and library resources. P5 emphasised that "everything our teachers instructed was available in the library. The teacher told me to get this resource that is available in the library". P7 said, "Although I used the library frequently, I used the e-library and the Garrison library. But I am a regular library user. When I was writing my thesis, my librarian showed me how to use Google Scholar and how to give references"." Three participants stated that they never used the libraries and therefore did not receive any support: 'I never used the library (P6), P4- Unfortunately I did not use the libraries, I got all my university books, notes and data sheets online. I even paid my tuition fees online (P4).

P11 shared the reason for not using the library, "The departmental library and the main library are not that supportive and useful", P9 also said that "I never liked my university library; no one ever recommended me to go to the library". Two participants said, "I used the library a lot, but unfortunately the information related to my topic was not accurate, being a transgender, I know many things related to us are not accurately mentioned in the literature. My supervisor was very supportive, and the librarian was also helpful, but there were not enough sources and accurate information available". Instead of libraries, participants used digital sources. P2 explained: "I have 24/7 hours access to the internet. My supervisor is very co-operative. He provides me with all the resources I need, so I don't feel the need to go to the library".

b. Support from classmates, faculty, lecturers and staff in accessing information

There were mixed responses regarding help from classmates, faculty and the university. The majority said that their faculty were supportive and had a positive attitude towards them.

About half of the respondents stated that their teachers and classmates had a positive attitude towards them. They were helpful and always available when needed. Their verbatim is quoted in Figure 2.

c. Strategies for searching and finding information relevant to your needs

Many participants highlighted the importance of digital resources like Google, social media, and ChatGPT for finding information. Common information searching digital platforms were the Internet, Google, and FB (P1), Chat GPT, and Google (P7), Online, searching and searching again (P11). A few participants still value traditional resources such as books and academic articles as P1 shared "I mostly read hard copy of books. So, most of the time I am taking information from books". In the same way, P6 commented "I first collect data from books and articles, and then I compile the collected information. It is also observed that the credibility and validity of information are crucial for some, especially when the information is for formal purposes. Participants were found consulting friends, and community members for help in this regard. They also shared using multimedia platforms like YouTube for quick and accessible information is a preferred method for some (P4).

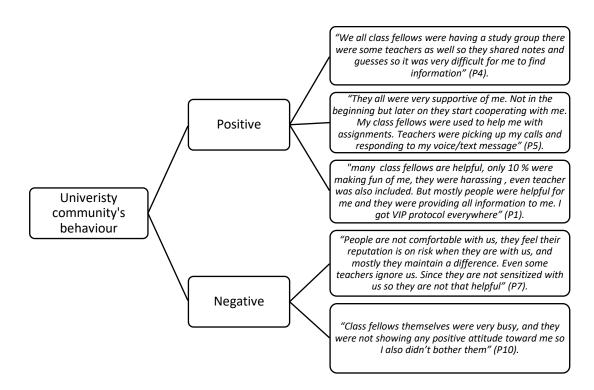


Figure 2: Behaviour of the university community towards the transgender community

d. Navigating information pathways

They shared that they enjoy education and feel happy and accomplished when their information need is fulfilled. P1 expressed that "I love education and reading. I prefer to search systematically and use information step by step. I feel happy and satisfied when I can get information easily". P3 said, "I enjoy searching and feel happy when I get information". On the other hand, feelings of frustration, anxiety, nervousness and irritation were observed when the information task remained incomplete. P6 shared: "Nervousness, anxiety, awareness of the validity of the information retrieved", P11 commented: "I feel too much frustration when I do not get my information".

e. Awareness of HEC digital library

The participants were asked whether they were familiar with the HEC digital library. The majority of participants replied that they were not aware of the HEC digital library. Four participants have heard of it, but unfortunately, they too have never used the HEC digital library to search for information. The examples of verbatim responses are as follows:

"Yes, I am aware of the HEC digital library; I have seen many videos about what a digital library is and how to use it" (P1).

"Yes, I know about digital libraries, but I have never used them" (P2).

"Yes, I am aware of the HEC digital library, the teachers recommend it, but I only use it very rarely" (P6).

"Yes, I know about the HEC digital library, but I have never used it" (P7).

f. Other specific digital platforms

Participants were of the view that YouTube and social media platforms are particularly useful for them, they usually get the information from these sources. P1, P4, P11, and P6 commented that YouTube and social media are the main sources they use. P2 said Linked in was a useful resource and P8 talked about the frequent use of TikTok. In terms of challenges, P1 emphasised that the only challenge was the lack of sufficient information on my topic. P4 noted that the internet, electricity, affordability and good speed of the internet are the challenges in using digital platforms. P10 said that the lack of information privacy is a challenge for them.

iii. Challenges in accessing resources

Participants were asked what challenges they face in accessing information, how they overcome these barriers and what suggestions they have for improving training, accessibility and support from universities and other organisations.

a. Challenges in the search for information

Participants were asked to discuss the difficulties or challenges they face in finding and accessing the information they need. Two participants pointed out that there is a lack of material about the transgender community in libraries and that authenticity is the problem with local literature if it is available (P1, P6, P11). The main problem highlighted by five participants related to the internet and electricity (P3, P8, P9), paid access to some articles and books (P2, P7), cookies, restricted access and problems with downloading (P7). Lack of funding was also cited by participants as a major challenge (P1, P8, P10). Information overload and misinformation were another challenge for the participants (P2). P7 expressed a similar view: "Too much information comes at once, selection becomes a problem, and too much time is spent". Two participants emphasised that the limited, restricted or paid access to some information sources was a challenge for them (P6, P11). Apart from the problems faced by participants in accessing information, they also reported the problems related to their gender identity. P4 said: "The biggest obstacle is my own identity. There is no place for me. In the demographic information, there are two columns: male and female. Which one should I tick? When I go to the bus station, they would not let me stand in the women's queue, they make me stand in a man's queue and the man harasses me. I cannot apply for any job in the male or female category"." P8 also said, "My biggest obstacle is my society, our own identity is an issue, the affordability of digital sources"."

b. Strategies for overcoming challenges

Participants shared a variety of issues they faced during their information-seeking. Two participants expressed that they tend to take help from friends and community fellows to resolve the issues they face. P1 said that "I am used to taking help from my friends and my community", and P5 also highlighted that "My only technique to overcome the challenge is to share my issue with others and ask for a solution". Participants also expressed that the problems they face are a constant struggle, so they were being patience or sometimes ignore the problems because they cannot overcome them. Regarding the problem of searching for information, they had different answers, which are quoted below:

"I am used to looking up my question in 2-3 sources" (P2).

"I try to get a grip on these problems and always make sure the battery is charged, and the internet package is subscribed" (P3).

"I keep trying and am becoming more careful about choosing and finalising things" (P7).

c. Suggestions for better accessibility of resources in the university and department

Almost all participants felt that their universities should offer training programmes to improve information literacy. P2 shared that "the university should provide regular training to improve our skills on how to access more resources, how to download articles". P4 expressed that: "If the organisations provide training, then we will surely be able to find information quickly. During this training, we will be taught skills and techniques on how to get accurate information, how to save time, the way of searching and how to confirm that the information is correct". They also emphasised that the training should be tailored to the needs of the transgender community. P3 commented that "the training should be tailored to our needs, and that can only happen if more of us are enrolled, then there will be few special arrangements for us. Currently our inclusion is zero and there is no effort to solve this problem. It was also emphasised that universities should work on their staff, they should be well trained. They should be trained in dealing with minorities. Apart from the support provided by the university, the department and the libraries, participants were asked if they could think of any additional support that could help them overcome their challenges. Participants emphasised that they need social support (P1), financial support (P1, P8, P10), training, seminars (P2, P4, P7), research centres for the transgender community (P3), inclusion in education, work and society (P4, P9, P11).

iv. Expectations of the university library

Participants were asked about their satisfaction with library services, their perceptions of the role of libraries and librarians, and their suggestions for improving the library's support for transgender people in accessing information.

a. Satisfaction with the library services

In terms of participants' satisfaction with library services and the role of libraries in facilitating these services, the majority of participants were not satisfied with libraries. P2 commented, "I can't comment as I don't feel so comfortable going there frequently". Similarly, P7 emphasised, "Less satisfied with the librarians and also the libraries are not enough, the digital libraries are not available for everyone and not so easy to use, or maybe I don't know how to use them". P3, on the other hand, said, "The role of libraries and librarians can only be satisfactory for us if transgender people are included in the libraries.

No trend to support us. No efforts to train us, no workshop or special seminar for us. How can we be satisfied then". Only two participants were satisfied with the library services and emphasised that "they help me no matter what information they have" (P1).

b. The role of libraries/librarians in the provision of services

The next question related to the role of librarians in providing services to the transgender community. Participants felt that librarians should be trained in how to behave towards us (P1,). Librarians should also advertise their services (P5), encourage transgender people to use libraries by organising orientation sessions for us (P6, P9, P2), and organise training and seminars (P9). One of the most detailed comments came from participant 10: "Librarians should be aware of gender diversity, gender inclusivity, gender dysphoria, sex and gender differences and gendered washrooms and they can be helpful if they are trained to deal with us".

c. Supporting transgender individuals in libraries

Participants were asked to give their views on how libraries can better support transgender people in accessing information. Many participants felt that librarians should make welcoming gestures towards transgender people. Four participants felt that libraries should set up separate spaces for them and that there should be some slogans or banners to show support for the trans community. P10 commented, "Libraries should use symbols for transgender people, there should be special symbols displayed for us. We should occupy some places". Similarly, P11 commented, "We should set up some places especially for us and put slogans in the libraries to show that we are open to transgender people. Libraries should also organise seminars to attract students (P6), provide relevant material (P1) and adapt the facilities (P4). One of the participants emphasised that the transgender community also needs to behave appropriately in order to get the facilities they need.

d. Reflections of the participants and additional points

Participants were encouraged to speak up if they had something on their mind. Participant 3 expressed concern about people's behaviour towards transgender people and added: "Access to public places is very difficult, most of the time I don't go to the library. Also, there is no special service for me, there is no counter for transgender people." P3 and P5 suggested "design policies for us, organising workshops, training, seminars, short courses, digital training and everything else for us" and "there should be special resources for transgender people in the libraries". P2 expressed that "There should be a special quota system for transgender people like it is for Hafiz-e-Quran, tribals or remote areas and special people. We also deserve national and international scholarships"." Participant 11 shared that "Sex education is very important, society should be aware of sex, gender etc., our society has very little information about transgender". P4 expressed concern about safety as they are harassed on roads and streets. P10 commented that libraries should not be segregated but should learn more about us and give us our due space. Libraries can disseminate transgender success stories and slogans to improve acceptance of the transgender community in society. Finally, respondents suggested setting up gender-specific washrooms in organisations and libraries and allocating special places for the transgender community (P7, P9).

DISCUSSIONS

The main aim of this study was to assess the information needs, information seeking, barriers and challenges that transgender students face when seeking everyday information. For this purpose, 11 transgender students from Pakistan were recruited through

snowballing. The interviews were conducted, transcribed and analysed. The analysis revealed that all participants were enrolled in various academic programmes such as BS, MPhil and PhD. In addition, all participants were also pursuing their professional careers as transgender and human rights activists, NGO workers, content creators, influencers and educators.

The results showed that transgender students' information needs typically revolved around their community, confidence, health, fashion and job search. The studies by Lytan and Tariang (2017) and Augustaitis et al. (2021) also found that health was the main concern in transgender people's information needs. In contrast, Ahmad, Warriach and Malik (2023) emphasised that music-related information (entertainment need) was the most sought-after everyday information by the transgender community in Pakistan. In terms of health-related information, transgender students need information on physical, mental and sexual health and other health-related procedures.

Participants expressed that they prefer to use internet-based sources such as Google, Chat GPT, Meta AI, Blogs, and YouTube; social media-based networking sites such as Facebook, Instagram, TikTok, and WhatsApp-based community groups. It was found that the trans community trusts their seniors (Gurus) more and close members; hence WhatsApp-based community groups are more useful for getting authentic answers. Participants were of the view that YouTube and social media platforms are particularly useful for them, in today's world these platforms are common for everyday information practices, Hanif and Warraich (2023) stated that, "In today's technology-driven society the most preferred information sharing platforms for everyday information were found the internet and social media" transgender usually get the information from these sources. Augustaitis et al. (2021) highlighted that transgender seek health-related information from online sources such as Facebook, YouTube, and Quora. Previous literature also shows that transgender people's favourite sources of information are their seniors, friends, the internet and social media (Huttunen et al., 2020; Floegel & Costello, 2019; Pohjanen & Kortelainen, 2016). Lytan and Tariang (2017) emphasised that the internet is the preferred source of information because it is safer for them and the information is readily available.

The current study has also shown that the transgender community values the credibility and validity of the information they obtain from their sources. Therefore, they sometimes use official websites to get authentic information. In this age of information overload, misinformation is a barrier to seeking information (Augustaitis et al., 2021). They also shared that in case of confusion, they seek help from friends, teachers and peers. Half of their peers were supportive, but the other half showed negative and insulting behaviour such as namecalling, using negative words and deliberate humiliation. Participants confirm that they receive support from their teachers and counsellors in the form of encouragement, academic guidance and a supportive learning environment. The results also show that the participants were not satisfied with either the library resources or the library services. Ahmad, Warriach and Malik (2023) also emphasised that the transgender community rarely uses the library. They cited several reasons for this, such as the unavailability of needed materials in the library, the lack of an inclusive environment, and the lack of tailored services for the trans community. The findings of Beiriger and Jackson (2007) also suggest that (public) libraries should create an inclusive environment for all members of their communities and add diversity to their collections.

In addition, the role of libraries and librarians changes frequently, as Hanif et al. (2024, p.448) describe: "The role of university libraries and librarians has changed over time,

especially with the development of new technological trends". In this context, tailored services for marginalised communities can be introduced to better meet their specific needs. The current study also found that the transgender community favours internet-based resources. However, they were not aware of the HEC digital library, which is one of the premier digital resource services provided by the Higher Education Commission Pakistan. When searching and accessing information online, it was emphasised that there is a lack of material on the transgender community and that the main issue with the available literature is authenticity. Other issues they face are internet or Wi-Fi access, affordability, electricity, limited/paid access to some articles and books, cookies, restricted access, downloading issues, information overload and misinformation, gender identity and affordability of using digital sources. The literature also highlights the problems faced by transgender people who want to continue their education. Ahmad, Warriach and Maik (2023) have also highlighted prejudiced behaviour towards the transgender community as a challenge to their inclusion in society.

The majority of participants suggested that universities should offer training programmes to improve information literacy. Furthermore, training programmes should be tailored to the needs of the transgender community. It was also emphasised that universities should work on their staff, who should be well trained, especially in terms of sensitivity towards minorities. Similarly, participants suggested that the library should show welcoming gestures for transgender students, set up separate rooms for them and put up some slogans or banners to show support for the trans community. Libraries should also organise seminars to attract students and provide relevant materials, such as literature on gender studies, transgender people, their rights and health resources tailored to transgender individuals. Similarly, customised facilities can include gender-neutral restrooms, private study areas and accessible support services that address the unique needs of transgender students and ensure a safe and inclusive environment. The study by Lytan and Tariang (2017) also suggests that libraries need to take the necessary steps, such as training their staff and working with external organisations that specialise in gender minorities, to adequately serve the information needs of transgender users.

Implications of the study

This research supports the idea that libraries need to seriously and quickly rethink their services to transgender students. This could include training librarians to better communicate with transgender patrons, ensuring that library collections have the appropriate resources, and making online tools more inclusive. Colleges and universities should do more to teach transgender students which sources of information are reliable through workshops or orientation sessions. There is also a need to create a more welcoming library environment for all types of library users through awareness and training programmes for library staff.

The findings suggest that both educational institutions and policy makers need to provide immediate support to transgender students. This could include creating policies that require libraries to be inclusive and supportive in terms of library space, resources, collection development and services. We also need more general policies that ensure that all students have equal access to digital resources and the internet. Policies that financially support transgender students to pay for academic resources or attend information literacy workshops could also help address inequality in access to resources and services.

CONCLUSIONS

The study explored the everyday information needs of transgender students in Pakistan. It found that these students primarily search for content related to their personal lives and well-being, such as health, fashion trends or career opportunities, as well as safety issues and current affairs. Whilst participants find help in utilising various digital platforms such as Google, Facebook and ChatGPT, dissatisfaction with how these can be used effectively to access reliable and contextualised information is noticeable among youth (particularly in relation to university libraries). Challenges identified included a lack of transgender resources in libraries, constant internet problems, financial hardships and misinformation. The results also indicated that participants were unaware of resources such as the HEC Pakistan digital library, suggesting that the overall information literacy of transgender students' needs to be improved.

The low utilisation of library services shows that libraries need to work harder to create a place where transgender students feel welcome and experience inclusivity. This could include training for librarians to better serve transgender patrons, publicising library services to the transgender community and holding orientations or workshops. In addition, creating a special area in libraries for transgender students and providing visible community support could help make the library environment more welcoming.

Overall, this study highlights the information needs and challenges faced by transgender people in higher education. It also highlights the critical role that libraries can play in addressing these issues. Future research is needed to examine the extent of current policies and strategies being implemented in higher education institutions so that they are better equipped to effectively meet the information needs of these individuals. Such initiatives are important in providing every student with the resources, tools and spaces they need to succeed academically and independently.

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AUTHOR CONTRIBUTION

Conceptualization: [Hanif & Saleem], Methodology: [Wahid], Formal analysis and investigation: [Saleem & Ashiq], Writing - original draft preparation: [all authors]; Writing - review and editing: [Saleem & Ashiq].

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Appendix 1: Interview Guide Everyday Information Needs and the Role of Libraries for Transgender Students in Higher Education

Demographic Information:

Name (optional):	Education:
Age:	Profession:

Research questions	Probing Questions
What types of information and sources do transgender students typically seek out?	 What specific types of information do you usually search (e.g., healthcare, legal advice, community support, etc.)? Which sources are more useful for you? Where do you get most of your information from? (e.g., online forums, libraries, social media, govt. official websites, community support groups, etc.)? Please provide details with examples! Which sources do you trust the most for accurate and up-to-date information? Why? Any other point you want to share
How do transgender people have access to information sources?	 Can you describe the kind of support you receive from your departmental or university libraries in accessing information relevant to your needs? Have you faced any difficulties in accessing information online? If yes, what kind of difficulties and how did you overcome them? In what ways have your classmates, faculty, or university staff been supportive in helping you search/find or access the information you need? Explain your information-seeking or searching or finding relevant information or sources to your needs. Express your feelings, thoughts, and acts when you are seeking any information (Information pathways: sequences of sources used)! Are you aware of HEC digital library services? Are there any digital platforms that you find particularly useful or challenging to use? If yes, please share details!
What challenges do they face in accessing these sources?	 What challenges or barriers have you faced in your search for information? How did you manage to overcome the challenges you faced? How do you think your university, department, or other organizations could improve in providing training and accessibility to information sources? Can you think of any additional support or resources that would help you overcome these challenges? Any other issues!
What are the expectations of transgender people from university libraries in facilitating their access to information resources?	 Are you satisfied with the library services and role of libraries? How do you see the role of libraries/librarians in providing you the services? How do you think libraries can better support transgender individuals accessing information? Any other point you want to share?

Appendix 2: Consent Form

Information needs of transgender students and the role of libraries in facilitating access to information in higher education

The aim of this study is to explore the information needs of transgender students in higher education institutions in Pakistan and the role of academic libraries in supporting their access to information. The aim of this study is to identify barriers, opportunities and best practises for inclusive library services.

As a participant, you will be asked to take part in an interview. The interview guide will be provided to you in advance. It will focus on your experiences, your information needs and your perceptions of the library services available to you.

Whilst there are no direct benefits to you from taking part in this study, your insights may help to improve library services for transgender students in higher education. There are minimal risks, such as emotional discomfort, if you talk about personal experiences. You are free to decline to answer any questions that make you feel uncomfortable.

It is also important to emphasise that:

- Your participation in this study is completely voluntary.
- You have the right to refuse to participate in the study or to withdraw at any time without consequence.
- All information collected during the course of the study will be kept strictly confidential.
- Your identity will not be disclosed in any report or publication arising from this study.
- The data will be stored securely and will only be accessible to the research team.

If you have read and understood the above information, please agree to participate in this study.

Name of the participant: ______ Participant's signature: _____ Date: