

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Universal Change Rooms Programming and Policy for the UBC Life Building

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KIN 464

Themes: Health, Community, Wellbeing

Date: Apr 2, 2020

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**UBC SEEDS Sustainability Program: Universal Change Rooms Programming and Policy
for the UBC Life Building**

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KIN 464: Health Promotion and Physical Activity

April 2nd, 2020

Executive Summary

The objective of the following research project proposed by SEEDS was to acquire feedback from UBC students, faculty, staff, and the surrounding UBC community about the UBC Life Building's universal change rooms.

According to previous research, the existing design of gender-based change rooms creates an environment that does not promote inclusivity (Herrick and Duncan, 2018). According to Davis (2016), the more recent use of stand-alone, gender-free stalls forces transgender athletes to use a space that doesn't recognize their chosen gender identity, resulting in forms of segregation, stigmatization, and isolation. This was found to be detrimental to physical, mental and emotional health (Sherwood & Jeffery, 2000). Although individuals of the LGBTQ+ community may benefit greatly from the implementation of universal change rooms, the facilities are meant for anyone interested in changing in a more inclusive and private environment. There is a widespread stereotype that universal change rooms are created for people of the LGBTQ+ community, therefore much of the current research focuses on this group specifically when collecting data on universal change rooms (Designing for Inclusivity, 2018).

This research project intends to gather and use community input from a diverse group of UBC students, faculty, staff and the UBC community on how to best communicate and encourage the use of universal change rooms in the UBC Life Building. The purpose is to help inform UBC's Recreation team on how to best advise its surrounding community about existing universal change rooms, and what can be done to encourage further use of such facilities.

The target population includes UBC students, faculty, staff, and surrounding UBC community members of any age, gender identity, and ethnicity who regularly use the UBC Life Building at least once a month. Participants were recruited by posters placed strategically around the UBC Life Building and Woodward Instructional Resources Centre, as it was anticipated that the majority of patrons using these buildings would have had the opportunity to use the UBC Life Building's universal change rooms. Participating individuals were able to complete an online survey, and/or engage in in-person interviews at the UBC Life Building regarding their experiences with universal change rooms.

The findings of this research project suggest that the UBC community approaches the use of universal change rooms with mostly positive or neutral views. Any criticisms expressed by participants often stemmed from miscommunication about the use, function and purpose of universal change rooms. Some participants were concerned with mixed gendered use of change rooms, and seeing users change in the open. This perception is misinformed as universal change rooms are designed with private spaces for changing and showering (Design for Inclusivity, 2018). Additionally, some participants suggest that a stigma has been created about the UBC Life Building's universal change rooms due to the communication surrounding it, which normalizes its use for certain groups, such as the LGBTQ+ community. In reality, however, everyone is encouraged to use these change rooms. It is therefore suggested that the UBC Recreation team utilize methods such as personalized email and accessible website information to practice more effective knowledge translation to the public. These methods should be accessible and informative, featuring information such as the universal change room's location, functions, purpose behind its implementation, and privacy rules. With these strategies implemented, it is hypothesized that the awareness, perception, and use of universal change rooms by UBC students, faculty, staff and surrounding UBC community would increase and improve.

Literature Review

It is known that binary-gender change rooms can create an environment that perpetuates homophobia*, exclusion*, and other forms of discrimination* (*See Appendix A; Herrick & Duncan, 2018). The above factors deter marginalized groups from accessing recreational facilities, creating a barrier to physical activity participation (Herrick & Duncan, 2018). Such groups include people with disabilities, seniors, victims of sexual assault, and the LGBTQ+ community (Herrick & Duncan, 2018). Due to the fact that physical activity plays a key role in physical and mental health, the lack of ability for these groups to achieve the same level of wellbeing as the general population is inequitable (Sherwood & Jeffery, 2000). As stated by Herrick and Duncan (2018), physical activity promotion needs to adapt so that policies, spaces, and even language can be inclusive of all individuals that participate in physical activity. One solution that has been proposed within the health and wellbeing community, is to integrate universal change rooms* within facilities (*See Appendix A; Beemyn, 2008). The inclusion of universal change rooms will allow for access by all persons, regardless of gender, and include individual stalls for privacy and safety (Beemyn, 2008). With this research in mind, there is a clear need to move away from gender-based change rooms and move towards universal change rooms that promote inclusivity*, decrease experiences of stigma* and discrimination (*See Appendix A). This will ultimately promote health and well-being for all members of the community by encouraging inclusivity and accessibility for all (Designing for Inclusivity, 2018). This proposed research project intends to present new findings that will help to inform UBC's Recreation team on how to best advise its surrounding community about existing universal change rooms, and what can be done to encourage further use of such facilities. The following review, however, will outline previous research on the implementation and effectiveness of

universal change rooms. By analyzing the literature, existing gaps will be identified which will guide this project's research within the UBC community, and specifically, the UBC Life Building.

As introduced by Herrick and Duncan (2018), the existing design of gender-based change rooms perpetuates an environment that does not promote inclusivity. According to Davis (2016), the more recent use of stand-alone, gender-free stalls*, forces transgender athletes to use a space that doesn't recognize their chosen gender identity, resulting in forms of segregation, stigmatization, and isolation (*See Appendix A). Additionally, the concept of being 'defective' is continuously reinforced for transgender athletes through stand-alone stalls (Schulevitz, 2016). The message that one is 'defective' can have long-lasting effects on an individual's mental health by invalidating their gender identity* (*See Appendix A; Cunningham, Buzuvis & Mosier, 2018). Such effects most often present as emotional distress, suicidal thoughts, and suicide attempts (Saewyc, Poon, Kovaleva, Tourand & Smith, 2016). The intent to divide transgender individuals into single-stall change rooms* further perpetuates a culture of exclusion throughout the whole sporting community (*See Appendix A; Schulevitz, 2016). Schulevitz (2016), continues to explain that stand-alone change rooms segregate transgender athletes, excluding them from experiencing the benefits of bonding, game playing, and camaraderie that routinely take place in change room settings. This again reinforces the culture of exclusion (Saewyc et al., 2016). The introduction of universal change rooms, therefore, promotes an environment that welcomes all users. Universal change rooms provide a space that both mixed and single-gender sports groups can use and benefit from (Designing for Inclusivity, 2018). With the proper implementation of universal change rooms, sporting communities can start working towards eliminating exclusivity and promoting inclusivity (Designing for Inclusivity, 2018).

Unfortunately, there is minimal research to date that explicitly claims that universal change rooms specifically can result in a direct improvement of health outcomes for the LGBTQ+ community. However, an article by Saewyc et al. (2016), suggests that inclusive curriculums and policies can increase mental and emotional health, as well as diminish substance use and abuse in LGBTQ+ high school students. Given the research of Saewyc et al. (2016), it would be beneficial to conduct further research to see if this phenomenon can be extrapolated to inclusive spaces in the post-secondary environment and beyond.

The immediate and often unquestioned conformance to an exclusive culture within sporting communities leads to other key topics frequently discussed in the literature, such as stigma and discrimination. 'Production of Culture' is a key theory that can be used to help explain the conformance to an exclusive culture (Peterson & Anand, 2004). This theory focuses on how normalized aspects of culture have been "created, distributed, evaluated, taught and preserved" by systems in which they operate (Peterson & Anand, 2004, p.311). This suggests that individuals will be stigmatized if they do not meet the idealized norm (Peterson & Anand, 2004). Another model used in an article by Meyer (2007), is the minority stress model, which suggested that stigmatized groups are likely to face a number of stressors unique to them. These stressors can include experiences of violence or insults from others who internalize the stigma imposed by society (Meyer, 2007). With the presence of such inconclusive, individualistic barriers, it becomes clear why little research has been done on LGBTQ+ adults and their disproportionately higher rates of chronic health concerns when compared to their heterosexual counterparts (Herrick & Duncan, 2018). Some of these health concerns include diabetes, limited mobility, and cardiovascular conditions such as hypertension (Herrick & Duncan, 2018). Often, conditions such as these can be improved through physical activity (Herrick & Duncan, 2018).

However, when physical activity engagement is paired with forms of discrimination, it can lead to a sense of being unsafe, and a general decrease to health and wellbeing (Herrick & Duncan, 2018). Beemyn (2008), suggests that being deprived of safe spaces reduces the likelihood that transgender people will feel comfortable engaging in sports and recreational activities, which relates to the earlier discussion of the exclusive sport culture present in our society. In the following literature, discrimination and stigmatization are further represented by the context of stand-alone change rooms.

With the barriers experienced by the LGBTQ+ community, universal change rooms present themselves as a promising step forward in providing safer environments for marginalized individuals. With further explicit research, the implementation of universal change rooms in recreational facilities, such as the UBC Life Building, could become valuable evidence-based practice. However, research thus far has lacked focus on a couple of key areas that will be important to address in the upcoming phases of this project's research plan. One of the gaps found in previous research is the close focus on the LGBTQ+ community. While this community can benefit greatly from the implementation of universal change rooms, it represents only a fraction of the population using these facilities at UBC. Additionally, while beneficial for some, the implementation of universal change rooms has been met with concerns by others (Designing for Inclusivity, 2018). Some concerns include fears that all-inclusive change rooms could put women and children at risk due to miscommunication around the purpose of universal change rooms (Designing for Inclusivity, 2018). With UBC being a leading university for inclusive health and wellness globally, it is important to consider everyone's perspective in future research (Dolf, 2020). Future research, therefore, should address how universal change rooms affect the physical activity experience for groups and individuals including and beyond the LGBTQ+.

Some research suggests that public change rooms may be a source of distress for sexual assault survivors (MacGregor, 1998). Addressing this concern, an article by David Dick-Agnew (2018) suggests using multi-purpose planning and making the main part of the universal change room visible. Having a visible public area could reduce the anxiety of sexual assault survivors and other marginalized groups (Dick-Agnew, 2018). Multi-purpose planning could additionally benefit families and individuals with disabilities by providing more space and allowing for a caregiver to accompany the individual with a disability (Dick-Agnew, 2018). Moving forward, this project will strive to generate research findings that includes and values the opinions of a diverse group of UBC community members while encouraging other researchers in the field to do the same.

Past research has identified that gendered and single-stall change rooms cause exclusion, discrimination, and development of stigmas for marginalized groups, specifically individuals from the LGBTQ+ community (Herrick & Duncan, 2018). Research has heavily focused on the impacts of universal change rooms for LGBTQ+ individuals, has only somewhat addressed other marginalized groups, such as sexual assault survivors and people with a disability, and often lacks acknowledgement of non-marginalized individual's opinions (Dick-Agnew, 2018; Herrick & Duncan, 2018). Therefore, the proposed research project intends to gather and use community input from a diverse group of UBC students, faculty, staff and surrounding UBC community members on how to best communicate and encourage the use of universal change rooms in the UBC Life Building.

Methods and Rationale

Purpose Statement

The objective of the following research project was to acquire feedback from UBC students, faculty, staff, and the surrounding UBC community about their perceptions and experiences with the UBC Life Building's universal change rooms. The collected data will be presented to the UBC Recreation team in an effort to help improve communication and encourage the use of these change rooms.

Sample

The target population included UBC students, faculty, staff, and surrounding UBC community members of any age, gender identity, and ethnicity who regularly use the UBC Life Building. Regular users are defined as individuals within the population criteria who visit the UBC Life Building once a month or more. Current literature heavily focuses on transgender individuals' perceptions and experiences with universal change rooms. The chosen sample criterion addresses this gap by examining all populations listed above. Regular users of the UBC Life Building have been chosen in order to examine 1) their experiences with the usage of universal change rooms, and 2) their perspectives on the inclusivity of universal change rooms. Both the experiences and perspectives of regular users were seen as important factors to examine as they provide feedback on how this impacts their choices to use the facility. Such perspectives are considered valuable in informing UBC's Recreation team on how to best communicate and promote the future use of the universal change rooms in the UBC Life Building.

Methods

Data was collected in the form of 1) an anonymous online survey and 2) complementary qualitative in-person interviews (See Appendix B & C). Participants were recruited for the survey through the posting of research posters around the UBC Life Building and Woodward

Instructional Resources Centre, as it was anticipated that the majority of patrons using these buildings would have had the opportunity to use the UBC Life Building's universal change rooms. Interview participants were recruited in an open-house format, where researchers were stationed outside of the change rooms in the UBC Life Building, and users were casually invited in for an interview. The research team conducted 74 online surveys, which surpassed the goal of 50, and 17 in-person interviews, which also exceeded the goal of 10. Although 74 participants completed online surveys, only 67 met the research inclusion criteria. This resulted in 7 surveys being excluded from the data analysis. All data was collected from Monday, February 24th, to Monday, March 16th. The 3-week period provided adequate opportunities for voluntary participants to complete the online survey and allowed the research team to collect a diverse sample of experiences through qualitative interviews. Participants could either complete the anonymous survey, participate in an interview, or do both. A mixed-methods approach was taken, combining qualitative and descriptive statistic methods in one body of research, which is known for its potential to develop deeper insight into the experiences of participants (Curry, 2015). This was valuable in understanding both the volume of experiences through survey responses, as well as the intimate experiences, opinions or feelings evoked in reference to universal change rooms through interviews. The incorporation of interview responses about experiences with universal change rooms into the findings of trends in the survey results provided more insight into explaining the nature or cause behind findings.

Anonymous Online Survey

A 17-question survey, which was accessible through a scannable QR code on recruitment research posters, collected both descriptive statistics and qualitative data (See Appendix B). In the attempt to increase the quality of the research findings, the survey was anonymous (with the exception of age, gender identity, and status at UBC) in order to provide participant's the privacy

needed to share experiences and disclose honest opinions around the topic of universal change rooms. The online survey collected a large amount of data while remaining accessible and convenient to participants. The scannable QR code on recruitment research posters provided more direct access to the survey in order to encourage participation. It was suspected that a large percentage of the target population would be using the UBC Life Building between study and work, therefore the survey was the best option in attempting to increase participation due to convenience.

In-Person Interviews

The complimentary in-person interviews provided an additional qualitative element and better-informed the interpretation of descriptive statistics findings from the online survey (See Appendix C). Interviews were performed outside of the universal change rooms in the UBC Life Building, at 6138 Student Union Blvd, Vancouver, BC. Interviews were conducted 2 to 3 days a week, with sessions being conducted over different days and times to vary data collection. Any use of participant data remained anonymous.

Data Collection

In order to provide a comprehensive understanding of the target population's perceptions and experiences involving the UBC Life Building universal change rooms, data was collected in a combination of descriptive statistics and qualitative methods.

Demographic Data

Participant's UBC status and general demographic data including age, gender identity, and ethnicity were collected to 1) confirm that participants met the research criteria and 2) examine general trends in the selected population sample.

Data Metrics

Participant's knowledge of the existence of universal change rooms was examined, including how they acquired that knowledge, if they would have liked to acquire it differently, and if so, how they would have liked to acquire it. The resulting data will prove valuable in informing UBC's Recreation team on how to best communicate the existence and the intended use of the universal change rooms in the UBC Life Building. Further questions examined the participant's understanding of the intended use and their personal experiences with their choices to use the universal change rooms. Gaining an understanding of participants' positive and negative perceptions surrounding the universal change rooms allows for improved communication about the facility by the UBC Recreation team. In addition, understanding the sources of distress surrounding the universal change rooms can be helpful in order to reconcile any of the community's concerns during the future promotion of such facilities.

Data Analysis

Following data collection, data was analyzed and organized with the software program Qualtrics (Qualtrics, 2020). Evident descriptive statistic data trends found in survey responses are displayed in the form of graphs and pie charts (See Figures 1, 2 & 3). Visual displays are perceived and understood more clearly by the general population therefore, graphs and pie charts were selected to display data in an attempt to increase the effectiveness in communicating results (Grant, 2019). Data from the graphs and pie charts was divided based on categories of participant responses in an attempt to understand current trends.

Qualitative data from the in-person interview responses and surveys were analyzed using a qualitative descriptive analysis (Sandelowski, 2000). The qualitative descriptive analysis focuses on providing a deeper understanding of an individual's experiences, often in reference to a specific service or event (Sandelowski, 2000). This analysis method was appropriate because it

allowed for the development of more personal opinions, feelings, and experiences regarding universal change rooms to complement the findings of the quantitative descriptive statistics from the online survey. The qualitative descriptive analysis employed open-ended questions to understand a wide variety of factors and elements which participants found significant in their experiences (Sandelowski, 2000). The open-ended nature of the interview questions was effective as it identified a broader range of factors that contributed to the use of universal change rooms and did not limit participants in their responses.

Results

Demographics

The inclusion criteria for the research participants included UBC students, faculty, staff and members of the surrounding UBC community. However, UBC students represent the majority of the 67 participants in the survey (See Appendix D). Participants' ages ranged from 13 to 25, with the most common age being 17, with 11 participants this age (See Appendix D). Self-identified females accounted for 61% of the survey participants, with only 1 respondent self-identifying as transgender (See Appendix D). The research can therefore be considered effective in capturing the opinions and experience of non-marginalized gender identities. As for ethnicity, Caucasian and Chinese are the two most represented ethnic backgrounds in the study, with 36% being Caucasian and 26% being Chinese (See Appendix D).

Knowledge of Universal Change Rooms

Of the 64 participants who responded to the question “did you know about the UBC Life Building universal change rooms?” 73% had knowledge of the existence of the universal change rooms (See Figure 1). When the data is broken down further it is noted that frequency of use at the UBC Life Building is positively correlated with an increased report of knowing about the

existence of the universal change rooms (See Figure 1), with the exception of “once every other week” (See Figure 1). The highest facility-use frequency being “once a day” reports 89% answering “yes” indicating they knew about the universal change rooms, which decreases to a 70% “yes”, for facility-use frequency of “once a week” (See Figure 1).

Figure 1

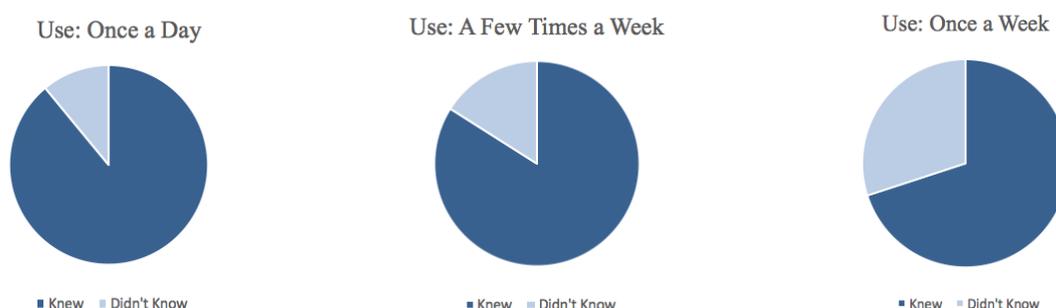


Figure 1: Pie charts reflect questions 7 and 8 from the survey; “how often you visit the UBC Life Building?”, and “did you know about the UBC Life Building universal change rooms?” respectively. The charts demonstrate the relative use of the UBC Life Building with correlated awareness of universal change rooms.

Communication of Universal Change Rooms

Of the survey participants who were aware of the UBC Life Building universal change rooms, they were further prompted to select how they learned about them. 59% self-reported learning about universal change rooms by seeing and or finding them on their own (See Figure 2). When comparing this information with the responses of participants who did not previously know about the universal change rooms, and were asked “how [they] would like to learn about the universal change rooms at the UBC Life Building”, 50% said an email from UBC would be their preferred channel, while no one reported preferring to learn about them through their own discovery (See Figure 3). Of the participants in the group who learned through finding or seeing

the change rooms on their own, 32% reported that they would have preferred learning about them in a different way (See Figures 2 & 3).

Figure 2

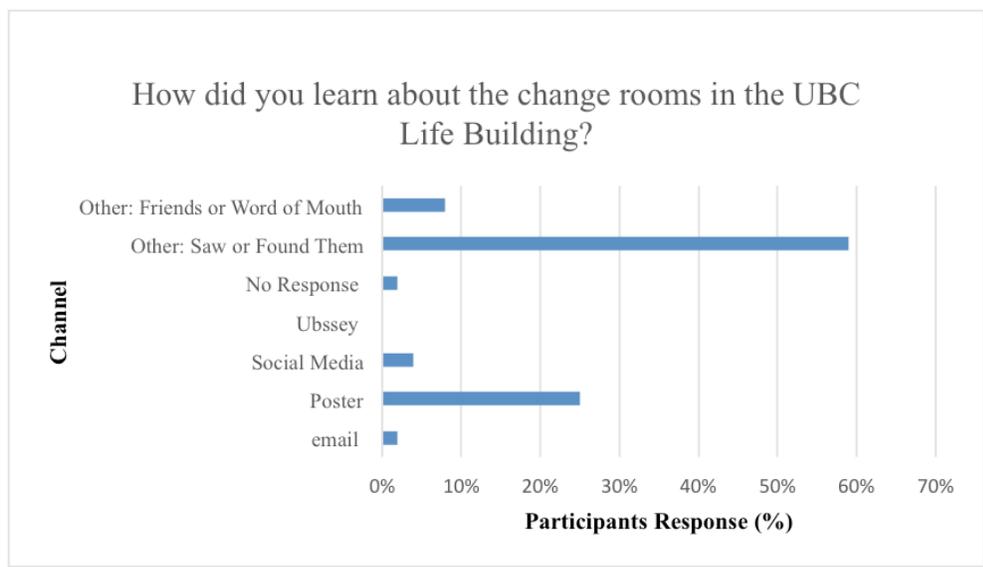


Figure 2: Graph demonstrating which platform participants learned about the universal change rooms through, based on survey question 9.

Figure 3

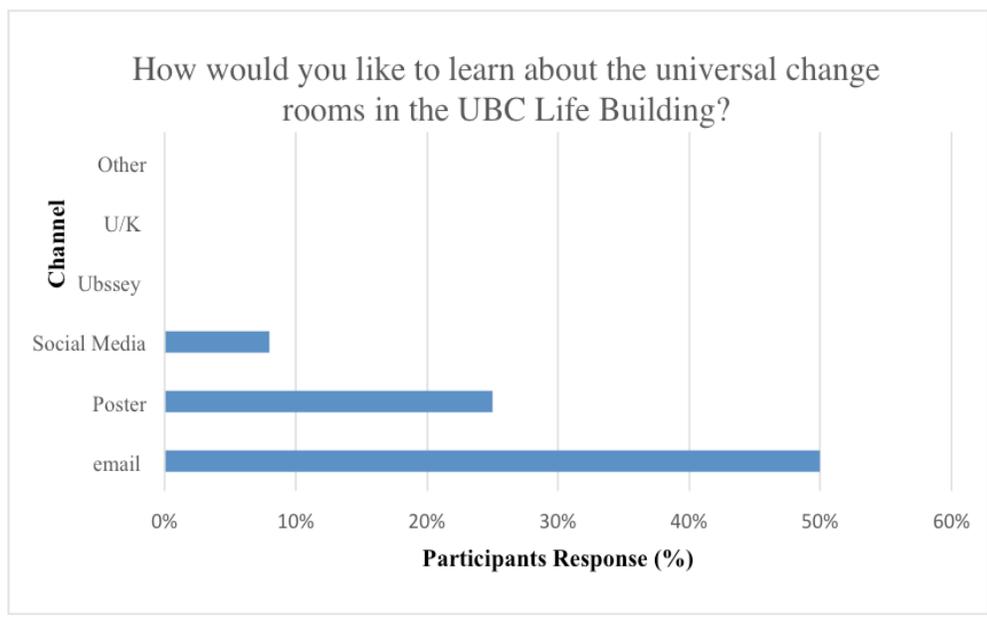


Figure 3: Graph demonstrating from which platform participants would like to learn about the universal change rooms in the future, developed from survey questions 10 & 11.

Universal Change Room Deterrents

The majority of survey participants responded “no” when asked “are there any aspects of the universal change rooms in the UBC Life Building that deter you from their use?” (See Appendix D). Of the 19 respondents who did select some form of deterrent, the most commonly reported aspect was being “uncomfortable with the concept of mixed gender use” (See Appendix D). Interviews further revealed that many users felt the concept of universal change rooms was rather new, and not one that they were familiar with. One female interviewee mentioned feeling uncomfortable using the universal change rooms, as she had used universal change rooms elsewhere and noted older men changing in the open areas, rather than the private stalls (See Appendix E). Four survey participants who used the textbox feature provided a list of additional aspects that may deter them, 2 of which suggested that change room cleanliness was a factor, while the other 2 did not understand why universal change rooms were “needed” (See Appendix E). Many interview responses also referred to cleanliness as a factor in deciding to use the universal change rooms, as well as physical factors such as changing stall size (See Appendix E). Other interviewees included reasons for avoided use, such as a conditioned tendency to gravitate towards the gendered change rooms, or a cultural divide, which contributed to a lack of understanding surrounding the purpose of universal change rooms (See Appendix E). Although, many interviewees also mentioned the convenience factor of the universal change rooms if the gendered change rooms were busy or full, as well as the increased privacy that the stalls in the universal change room provide that the gendered change rooms do not (See Appendix E). Overall however, this question had the lowest rate of responses with 11 of the 67 participants choosing not to answer (See Appendix D).

Perceptions of Universal Change Rooms

When asked “who the change rooms were for”, 76% survey respondents suggested “everyone” (See Appendix D). However, interviewees noted that while they believe anyone *could* use universal change rooms, they feel as though their use is intended for others, specifically transgender or non-binary individuals (See Appendix E). Other interviewees expressed that when using the universal change rooms, they felt stigmatized by other gym-goers as being someone who ‘needs’ the universal change room (See Appendix E).

Discussion

Current research on universal change rooms mainly focuses on their impacts for the LGBTQ+ community, with limited research that focuses on non-marginalized individual’s experiences (Dick-Agnew, 2018; Herrick & Duncan, 2018; MacGregor, 1998). Based on our research, the resulting gaps in knowledge are concerning as the majority of users of the UBC Life Building’s universal change rooms do not fall within this category; 1/67 identify as transgender (See Appendix A). The evidence found demonstrated a need for improved communication strategies to help guide general and practical understanding surrounding the usage of universal change rooms. This knowledge will be used to then inform the UBC Recreation team on how to better communicate the existence of the universal change rooms and how their use can be encouraged.

Physical Experiences with Universal Change Rooms

Data analysis revealed two main themes: physical experiences with universal change rooms, and assumptions about them. The first main finding highlights participants' perceptions on the physical aspects of universal change room use. Participants expressed increased likelihood to use the universal change rooms due to increased cleanliness, space, privacy and minimal

crowding. However, some participants were concerned with mixed gendered use of change rooms, and seeing users change in the open. Since universal change rooms are designed differently than gendered change rooms, the data suggests that there is confusion around the physical use of universal change rooms and the necessity to change in private stalls rather than out in the open. Universal change rooms are spaces that are designed for changing and showering in private stalls only (Design for Inclusivity, 2018). A participant even claimed they were less inclined to use the change rooms as they are “poorly explained to the public.” Participants' responses demonstrated a need for increased education surrounding proper change room etiquette, and continued maintenance of cleanliness, space and privacy.

Assumptions of Universal Change Rooms

The second main finding highlights the stigma surrounding the universal change rooms. Due to stigma, individuals have inaccurate perceptions of who the universal change rooms are designed for. The perspective of ‘Production of Culture’ focuses on how normalized aspects of culture have been “created, distributed, evaluated, taught and preserved” by systems in which they operate (Peterson & Anand, 2004, p. 311). Some participants suggest that stigma surrounding the universal change rooms has been created from the communication surrounding it, normalizing use to only certain groups, like the LGBTQ+ community. This can be seen through UBC’s communication on the UBC Equity and Inclusion Office Page. The UBC webpage for universal change rooms and washrooms creates the perception they are solely for trans, gender fluid, non-binary, and gender-nonconforming people through the wording on their website (Inclusive Washrooms & Changerooms, n.d.). However, universal change rooms are designed for the purpose of including any person who wishes to use them, including people with disabilities, and families (Design for Inclusivity, 2018). The way the UBC Recreation team

distributes knowledge about universal change rooms to students, staff, faculty and the surrounding community influences their perspective on the culture of universal change rooms, creating bias and stigmas (Wang, 1992). In order to minimize stigma, it is critical for the UBC Recreation team to approach communication regarding universal change rooms in a manner that is informative and non-biased to normalize use for everyone.

Stigma surrounding the universal change rooms stems from a lack of communication regarding the facilities in the UBC Life Building. If the majority of individuals are discovering the universal change rooms on their own time, they are likely not receiving any physical information about the change rooms. With the exception of “once every other week” users, general data trends indicate that there is an increased awareness of the universal change rooms with increased time spent in the UBC Life Building (See Figure 1). Both of these findings support the idea that independent discovery without education results in inaccurate perceptions surrounding the universal change rooms. From a ‘Production of Culture’ perspective, if UBC is lacking to control the messaging and culture around universal change rooms, the institution is indirectly allowing stigma to be reproduced and normalized (Peterson & Anand, 2004).

Improving Communication of Universal Change Rooms

Better communication surrounding universal change rooms purpose can lead to a reduction in misunderstanding and stigmas. Consistent trends indicate that the top preference for communication regarding the universal change room is via email. Although email is the preferred communication channel, only 2% of participants aware of the facility learned about the change rooms by email. Data suggests that even though communication preference is by email, it may be an ineffectively used platform. Communication platforms such as broadcast email can be difficult with regards to informing university communities, as not many students open, read or

engage with content in mass emails (Dawkins, 2019). For example, on March 14, 2018, a UBC broadcast email was released regarding the opening of the UBC Life Building. Titled “UBC Life Building now open”, the email contained a brief description of the ARC facilities, with no mention of universal change rooms (UBC Life Building now open, n.d.). However, a link was provided to the UBC Recreation webpage, where underneath “Facility Features”, “universal change room facilities” is listed (Fitness Centres and Locations, n.d.). As the literature suggests, low engagement with mass emails presents a potential communication barrier for information regarding facilities like the UBC Life Building universal change rooms. In the case of the UBC broadcast email, student engagement is required to click on a link to learn about the facility, and further individual research is required for more information about universal change rooms. Thus, ineffective communication can lead to misguided perceptions of UBC students, staff, faculty and community around the purpose and use of universal change rooms.

Study Limitations

With consideration of the current findings, it is important to consider the limitations faced within this research project prior to making recommendations. The first limitation is that the study had a small sample size. Given this was an anticipated challenge prior to data collection, data was gathered through two methods, an online-survey and in-person interviews. Data was also collected over a 3-week period in order to increase variability in population data. However, the sample lacks variability as most of the participants identify as a binary gender. Given the misconceptions around universal change room use, further research may be beneficial regarding non-marginalized groups and universal change rooms. A second limitation present in the study is participant bias. It was found that participants' answers were fairly short and unspecific, possibly due to a lack of comfort or time. It was difficult to find participants willing to answer questions,

as most were occupied using the gym facilities, moving between classes, or perhaps felt constrained to adhere to socially acceptable/polite responses. In order to minimize participant bias, the researchers were non-pressing, non-judgmental and welcoming to all responses. However, participant bias still remained a limitation. A third limitation identified was location bias in relation to the interviews. Successful interview data collection occurred in the vicinity of the universal change rooms at the UBC Life Building. As a result, it was found that most participants were aware of the universal change rooms, and minimal interview data was collected on participants who were not aware of the change rooms. However, the responses provide valuable input on current perception and usage trends for the universal change rooms. Further research could be made on universal change rooms by broadening inquiry outside of the UBC Life Building, introducing data for individuals who are less likely to know or use these change rooms.

Recommendations

The lack of previous communication promoting the UBC Life Building's universal change rooms, resulted in a missed opportunity to establish a clear message regarding the use and purpose of change rooms. The UBC Recreation team can use this as an opportunity for growth in the future with the possible implementation of more universal change rooms at the University of British Columbia. The following recommendations will be provided to help reshape the image of universal change rooms by educating UBC students, faculty, staff, and the surrounding community in order to encourage their use. With the goal of making the UBC Life Building universal change rooms and fitness facilities as inclusive as possible to optimize health and wellbeing, the hope is that the following recommendations will allow the UBC Recreation team to make the healthiest choice the easiest choice. Two of the recommendations will advise

the UBC Recreation team on how to best inform the community about the existence of the universal change rooms at the UBC Life Building, and three recommendations will further guide the Recreation team on how to promote the use of these change rooms.

Informing the Community: Emails

The first set of recommendations can be applied to ensure the communication method used by the UBC Recreation team is delivered effectively to the community. There is no evidence or knowledge of a previous UBC broadcast email regarding the UBC Life Building's universal change rooms, and 50% of survey participants wish to learn about universal change rooms through email (See Figure 3). It would be first recommended then, that the UBC Recreation team develops an email featuring the universal change rooms at the UBC Life Building, informing the UBC students, staff, faculty and surrounding community members of them. Valuable information to include in this email could be the universal change room's location, it's functions, the purpose behind its implementation, the privacy rules, and any relevant links. By providing such information, the UBC Recreation team has the potential to minimize misunderstandings and stigmas surrounding universal change rooms. With Dawkin's (2019) research on the limitations of mass emails, it would further be suggested that the UBC Recreation team communicates with smaller channels, such as the ARC gym, individual faculties, and relevant clubs in their efforts to inform the community about the universal change rooms. UBC Recreation could provide targeted and inclusive emails through these smaller channels to be sent out to members, which will likely increase the number of people who open, read or engage with the email because it is more personalized (Dawkins, 2019).

Informing the Community: Website Updates

A second recommendation would be to include updated and detailed information regarding the universal change rooms on relevant websites. This can be done by creating easily accessible drop-down tabs within the ARC website and UBC Recreation website, which brings individuals to a page that provides up-to-date information on the universal change rooms (Apuke & Lyendo, 2018). The ARC website then becomes an individual's first point of contact when accessing information regarding the purpose of the change rooms, rather than seeking this from the UBC Equity and Inclusion Office Page website. These updates will increase the perceived ease of information access, making it more likely that users of the UBC Life Building will be informed of the existence and purpose of the universal change rooms, further contributing to decreased stigmatization of such facilities (Apuke & Lyendo, 2018). Updates to the ARC website would highlight the benefits of universal change rooms for everyone, thus eliminating the perception that these change rooms are exclusively for the benefit of the LGBTQ+ community, as is previously stated on the UBC Equity and Inclusion Office Page.

Promotion: Educational Posters

With recommendations for how to best inform the community about the universal change rooms at the UBC Life Building, the remaining recommendations will act to direct UBC's Recreation team in promoting the actual use of these specific change rooms. In an effort to further reduce the assumptions and stigmas made about universal change rooms, the first recommendation is that it would be valuable to consider the production and posting of educational posters amongst the UBC Life Building, and other UBC Recreation facilities. Educational posters have been shown to be a successful intervention for increasing knowledge, changing attitudes and behaviours of individuals (Iliac & Rowe, 2013). By creating posters that

have an appealing graphic design, the UBC Recreation team will be successful in informing the community about how *everyone* can benefit from the use of universal change rooms and why they are an important asset to incorporate in UBC facilities (Iliac & Rowe, 2013). This is further supported as survey participants suggested that educational posters could be a successful intervention (See Figure 3).

Promotion: Physical Concerns

Our second recommendation surrounding promotion would indirectly help promote the use of the UBC Life Building's universal change rooms, by addressing a physical concern voiced by research participants. Through analysis of the results, it was made clear that change room users desire a space that is clean and has adequate space and privacy. There is a high correlation between the power of design and influencing physical activity habits, therefore it is important that the universal change room is a place that is inviting to its users (Scheineson, 2018). This can be achieved through welcoming signage and proper training on universal change room etiquette with the UBC Recreation staff (Scheineson, 2018). The UBC Recreation team could also implement an environmental change that would naturally welcome users, such as a cleaning/maintenance training and/or a posted cleaning schedule in the universal change room (Scheineson, 2018).

Promotion: Future Projects

The final recommendation is one for consideration in the development of new universal change rooms for other UBC Recreation facilities. As was voiced by study participants, adequate space and privacy are priorities in making a decision regarding change room usage. Research suggests that a more open concept change room enhances safety and patron satisfaction

(Designing for Inclusivity, 2018). Given that our participants valued the present space provided, it is encouraged that UBC continues the same universal change room format going forward.

Targets for Success and Future Research

Successful implementation of the above five recommendations can be assessed through the following indicators. A successful job of informing the community about universal change rooms can be reflected in the observation of more appropriate change room use, such as respect for the public's privacy and comfort by only using changing stalls when undressing. This can also be realized through seeing more diverse users within the change rooms, due to an understanding that these change rooms are not reserved exclusively for the LGBTQ+ community. Successful promotion of the universal change rooms can be further observed through decreased usage of single-gender change rooms. This would demonstrate that the universal change room space is clean, spacious, adequately private, and that individuals see the space as welcoming for all. Future research to re-evaluate students' perceptions of, and experience with universal change rooms in the UBC Life Building can also act as an indicator for the successful application of our recommendations.

Conclusion

Based on the current literature, it is clear that universal change rooms are beneficial for the health and wellbeing of their users. Most of the research in this area has been done with members of the LGBTQ+ community, although universal change rooms are meant for everyone. The findings of this research project suggest that the previous understanding of universal change rooms being exclusively for LGBTQ+ individuals, as well as other common misconceptions around privacy and cleanliness, have led to a stigma around the universal change rooms in the UBC Life Building. It is suggested that more communication and accessible online information

from the UBC Recreation team would improve the perceptions of universal change rooms and decrease the stigma surrounding them. With the recommended strategies implemented, it is hypothesized that the awareness, and ultimately the use of universal change rooms, would increase.

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Appendix A: Defining Key Terms

Discrimination: Prejudiced action, outlook or treatment towards an individual (Mariam Webster Dictionary, 2019).

Gender identity: A person's innate sense of their own gender (Designing for Inclusivity, 2018).

Homophobia: Dislike of or prejudice against homosexual people (Mariam Webster Dictionary, 2019).

Inclusivity: The practice or policy of including people who might otherwise be excluded or marginalized, such as those who have physical or mental disabilities and members of minority groups (Mariam Webster Dictionary, 2019).

Single-stall change rooms/stand-alone stalls: Designated change rooms for transgender individuals to use that are an addition to single-gender change rooms (Davis, 2016).

Stigma: A behaviour or attribute that is socially discredited in a way that causes an individual to be mentally classified by others in an undesirable way rather than an accepted way. This results in sources of stress and social disadvantages (Grinnell College, 2020).

Transgender: A person whose gender identity does not align with their sex assigned at birth (Designing for Inclusivity, 2018).

Universal: Term used to indicate spaces that can be used by people of all abilities and genders. This includes multiple users, families, caregivers, and people with disabilities. There is an emerging best practice to use the term "universal" instead of "gender-neutral" and "all genders" (Designing for Inclusivity, 2018).

Appendix B: Online Survey Questions

Question 1: Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time (Signature).

Question 2: Date (Textbox).

Question 3: Are you a: (UBC student; UBC faculty; UBC staff; Surrounding UBC community member; Other)?

Question 4: What is your age?

Question 5: What is your gender identity? (M; F; Prefer not to say; Other (textbox)).

Question 6: What is your ethnic background? [Please state (Textbox); Prefer not to say].

Question 7: How often do you visit the UBC Life Building? (Once a day; A few times a week; Once a week; Once every other week; Once a month; Less than once a month).

Question 8: Did you know about the UBC Life Building universal change rooms? (Y; N; Don't know).

Question 9: IF YES: How did you learn about the universal change rooms at the UBC Life Building? [Email from UBC; Poster in the UBC Life Building; Social Media; Ubyyssey (UBC's Official Student Newspaper); Other (please specify)].

Question 10: IF YES: Is there another way you would have liked to learn about them? [The same way; Email from UBC; Poster in the UBC Life Building; Social Media; Ubyyssey (UBC's Official Student Newspaper); Other (please specify)].

Question 11: IF NO: How would you like to learn about the universal change rooms at the UBC Life Building? [Email from UBC; Poster in the UBC Life Building; Social Media; Ubyyssey (UBC's Official Student Newspaper); Other (please specify)].

Question 12: Who are the universal change rooms at the UBC Life Building intended for? (Textbox).

Question 13: Do you use the universal change rooms at the UBC Life Building? (Never; Once; Sometimes; Frequently).

Question 14: If never, after learning about them, are you likely to use them? (Y; N; Maybe).

Question 15: Are there any aspects of the universal change rooms at the UBC life building that deter you from their use? Please select all that apply: [N; Feeling unsafe; Uncomfortable with the concept of mixed gender use; I don't understand how it works; Other].

Question 16: If OTHER, please elaborate (Textbox).

Question 17: Is there anything that would make you more inclined to use the universal change rooms at the UBC Life Building? (Textbox).

Appendix C: In-Person Interview Questions

Question 1: Do you use these universal change rooms? (Y; N)

Question 2: IF YES: Is there any particular reason you use universal change rooms?; Do you have a preference for universal change rooms or gendered change rooms? Why?; Can you tell me more about some of your experiences using universal change rooms?

Question 3: IF NO: Why not?; Have you ever used a universal change room before? If so, can you tell me more about that experience?

Appendix D: Survey Responses

<https://drive.google.com/file/d/1IGpSFM4rnIDslL0k7vER7EkTMnuQesx2/view>

Appendix E: Interview Responses

Open House Interview Descriptive Statistic Summary

1. Feel stigmatized as a user
2. Some users do not know what universal means
 - a. Perception that Universal = transgender
 - b. Did not think the universal change rooms “were for [them]”
 - c. See value for “other” people
3. Uncomfortable, but not deterred
 - a. Odd to see people changing in the open
 - i. Young female uncomfortable with old men → not using the private stalls to change
 - ii. Different from changing out in the open in gendered change rooms
 - b. Some say universal change rooms are more dirty than gendered change rooms
 - c. Some say universal change rooms are more clean than gendered change rooms
4. Concern for space and privacy
 - a. Appreciate universal change rooms having private stalls, and increased privacy compared to gendered change rooms
 - b. Better headspace
 - c. Desire space and cleanliness
5. Convenience
 - a. Uses whatever is available
 - b. Uses whatever is closer when they arrive (dependent on door of entry)

- c. Default is men's or women's, but not opposed to using the universal change rooms
 - d. People from different ethnic backgrounds, one participant from China stated that universal change rooms are not a thing there, so he gravitates towards the gendered changeroom
6. Universal change room usage
- a. Took kids to change as a swim coach → can monitor all kids at once
 - b. Have used family washrooms