# EXPLORING WOMEN'S EXPERIENCES AND GENDER RELATIONS IN ROCK CLIMBING: A PARTICIPATORY ACTION RESEARCH PHOTOVOICE STUDY

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## DEDICATION

I dedicate this thesis to the women who participated in this study. Their strength, courage, and willingness to share their photographs and stories is the reason I was able to complete this work. Thank you for sharing your stories and giving me a glimpse into your lives; you have all inspired me on this journey of learning and discovery.

A special dedication goes to my children, Yael, Atlas, Seth, Icarus, Neo, Fern and Iris. Your incredible sacrifice, love, encouragement, and support were crucial in allowing me to complete this research. Throughout my academic pursuits, you have inspired and motivated me to accomplish my goals. I love you all.

# ABSTRACT

Success in rock climbing relies on a combination of athletic skills and traits often hegemonically defined as feminine (grace, balance, petite) and masculine (strength, endurance, muscular). Because climbing requires this balance of traits and skills, there are few differences found in the physical and psychological capabilities of female and male rock climbers. Despite this, individuals who identify as women often experience gender discrimination and feel they are treated differently than male peers in rock climbing communities—showing that gender relations in rock climbing are impaired by societal gender stereotypes and sports ideology rather than actual differences in climbing ability. Using photovoice methods, five women were provided with a medium to capture their experiences regarding gender relations in rock climbing. The research aims to inform rock climbing associations and influence future organizational programs to increase women's climbing participation and enhance women's experiences in the climbing community.

## ACKNOWLEDGEMENTS

will always be my greatest joy and accomplishment. Thank you all, I could not have done any of this without your support and love.

To my parents, thank you for instilling in me a love to learn and giving me the space as a child to be curious. My love of the outdoors comes from all those camping trips and days at the Cabin surrounded by nature and learning to hike, fish, and ski. Through my studies, I have learned how fortunate I have been to have had such adventures and to have loving and supportive parents who gave me so many opportunities to explore the world.

Lastly, I would like to acknowledge my grandparents. My grandfather, whose hands built the Cabin I loved so much as a child, a place where I could explore and connect with the natural world and be immersed in something so much greater than myself. You taught me to light a fire, chop wood, water ski, canoe, work hard for my family, and so much more. Grandpa, I love you, and I miss you dearly. To my grandmother, although I have never had much desire to be inside learning to be domesticated, I understand your dedication and love to support your family in this way. I loved the sound of the dinner bell as it rang us in for lunch and dinner all summer long. Thank you both for a place to feel safe to explore the natural world.

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ACC          Alpine Club of Canada
ACMG       Association of Canadian Mountain Guides
ATC          Air Traffic Controller (climbing device)
PAR          Participatory Action Research

# CHAPTER ONE: LITERATURE REVIEW

## Introduction

Rock climbing is a broad term. It includes gym climbing, crag climbing, bouldering, or trad climbing. But rock climbing can also be included in other mountain adventure activities, like, alpine climbing and mountaineering. Historically, rock climbing included ascending a vertical (varying degrees) section of a mountain or cliff as part of alpine and mountaineering adventures (Bright, 2014). With the invention of climbing gear that is safer and more reliable, participants began climbing and developing outdoor climbing crags. More recently, climbing gyms were designed to simulate outdoor climbing experiences. Climbing gyms were initially places to practice when weather or location did not permit outdoor climbing (Burbach, 2004; Lewis, 2018). Today gym climbing is a popular recreational sport for many who have never, and never intend to, outdoor climb (Coldwell, 2012; Lewis, 2018). With the invention of climbing gyms, and the increased popularity of climbing, rock climbing has become a mainstream sport; far from its classification as an alternative or fringe sport (Burbach, 2004). Competitions are now televised on mainstream sports channels, individuals recognize professional climbers outside of climbing communities, and climbing is now an official Olympic sport.

Rock climbing is one of the fastest-growing alternative sports in the world (Abramson & Fletcher, 2007; Burgaman, 2019; Gangnon, Stone, Garst, & Arthur-Banning, 2017; Robinson, 2008). Although participation increases are predominantly among upper-middle-class white heterosexual males, climbing is quickly seeing a heightened presence of individuals belonging to a variety of minority groups, including racialized, (dis)ability, gender/sexual diverse groups, and women. With the influx of historically underrepresented

individuals, the culture of climbing, which has been traditionally rooted in masculine, colonial, and heteropatriarchal values and standards, is being challenged (Allee, 2011; Mitten, 2018a; Warren, Mitten, D'amore, & Lotz, 2019; Wigglesworth, 2021). Of all minority groups, women's increased participation is most notable - predominantly among women who are white, heterosexual, and upper-middle-class women (Allee, 2011; Phillips, 2017). Women are challenging long-standing patriarchal gender norms and stereotypes within the sport by speaking out about stereotypes, patriarchal and colonizing practices, like route naming, and challenging beliefs that women are inferior climbers (Allee, 2011; Appleby & Fisher, 2005; Hill, 2002; Wigglesworth, 2021).

Despite the increased presence of women in the sport, rock climbing remains deeply rooted in masculine culture (Allee, 2011; Appleby & Fisher, 2005; Chisholm, 2008; Dilley & Scraton, 2010; Dilley, 2007; Doran, Schofield, & Low, 2018; Evans & Anderson, 2018; Evans & Gagnon, 2019; Frohlick, 2006; Plate, 2007; Sharp, 1998; Summers, 2007; Vodden-McKay & Schell, 2010). Women who pursue rock climbing find themselves immersed in the masculine, placing them in a position of being framed by their gender (Chisholm, 2008). Comparable to mainstream sporting culture, sex segregation and gender distinction in climbing leave women feeling as though they are 'other', outsiders to the predominantly male community, even though this is incongruent with the way they view themselves (Chisholm, 2008; Dashper, 2012; LaVoi, Baeth, & CalhounLough, 2019; Lough & Geurin, 2019). Few studies have examined the unique experiences of climbers who identify as women. Most of those studies were conducted in the United States and the United Kingdom. With such a large climbing area and a large climbing culture in Southwestern Canada, women who climb in these areas can contribute significantly to the growing knowledge of women's rock climbing experiences.

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**Background and Significance**

Informal surveys conducted by *Climbing* magazine and online women's climbing platforms report that women frequently experience gender discrimination in rock climbing (Climbing, 2016; Jun, 2016a; Phillips, 2017; Wigglesworth, 2021). Women are most likely to express feeling unwelcomed, unsupported, and intimidated within the world of climbing (Ellison, 2016; Jun, 2016a). A Survey conducted by *Flash Foxy,* a women's online climbing platform, showed that 64% of women reported that there are physical and social spaces in climbing gyms where they feel uncomfortable, compared to 30% of males (Jun, 2016b). Unwanted staring was experienced predominantly by women; 39% of women, compared to 15% of men, and unsolicited advice was experienced by 32% of women, compared to 14% of men (Jun, 2016b). Moreover, 65% of women report experiencing some type of microaggression at climbing gyms, compared to 25% of males. Both women and men stated that microaggression was most often received from male climbers (Jun, 2016b). Of 3,158 women surveyed in a 2016 *Climbing* magazine survey, 76% stated they had been treated as weaker or less experienced climbers, as a result of their gender, by the opposite sex (Climbing, 2016). Forty-eight percent reported taking steps to avoid unwanted attention by a male in the climbing gym, and 48% stated a male had objectified them in a climbing situation (Climbing, 2016).

Current evidence suggests that women experience gender discrimination, overt sexualization, and sexism in rock climbing (Allee, 2011; Chisholm, 2008; Dilley & Scraton, 2010; Doran et al., 2018; Hill, 2002; Robinson, 2008). However, in the climbing community, efforts are being made to increase the understanding of women's experience in climbing. The Association of Canadian Mountain Guides and the American Mountain

Guides Association have shown interest through organizational research and organizational changes that they are dedicated to building equity within the climbing community. By including women within these organizations and creating female-led mentorship programs, these organizations are working hard to build a future of equity for women and all climbers. Recent media coverage and discussions on social media platforms show a growing concern for understanding women's experience with gender relations in climbing (Bruijin, 2019; Canadian Broadcasting Corporation, 2019; Ellison, 2016; Rodden, 2020).

Previously, no comprehensive literature reviews have been published about women's experiences in rock climbing. This literature review aims to identify the experiences of individuals who identify as both women and rock climbers and how women experience gender and gender relations in rock climbing communities. Two questions guided this review:

1. What are the experiences of rock climbers who identify as women?

2. How do women who identify as climbers describe the current climbing culture?

## Methods

A comprehensive literature review was completed to retrieve and assess all relevant studies related to *women's experiences with gender discrimination in rock climbing*. Electronic searches were performed using the following online databases: Academic Search Complete, *SPORTDiscus, PsychINFO, Gender Studies Database,* and *SocINDEX*. Search terms were selected to include words that would encompass all forms of rock climbing, along with terms that would consist of the topic of gender discrimination; these included: rock climbing, mountaineering, bouldering, sport climbing, traditional climbing, feminism, women, misogyny, sexism, toxic masculinity, androcentrism, chauvinism,

discrimination, and patriarchy. Truncation, syntax and variations in spelling were applied to keywords to refine search criteria.

**Inclusion/Exclusion Criteria**

The search was limited to English literature between 2010 to 2021. After a review of the literature, additional articles dating as far back as 1998 were searched through *Google Scholar* and added to the literature review. Articles that extended beyond the 12 years search limit were included based on relevance and significance to the literature review. Qualitative, quantitative, and mixed-method research designs were included. All identified articles included women's experiences in rock climbing. Articles that did not include women as participants or did not directly analyze rock climbing experiences were excluded.

**Search Process**

The literature search resulted in 199 articles. Sixty-one articles were removed due to duplication; abstracts were then reviewed to assess the relevance of each article to women in rock climbing. After the initial abstract review, 66 articles were retained. EndNote reference manager was used to import and store references and citations. Articles were then reviewed and assessed for relevance to the following criteria:

1. Primary research topics focused on women's experiences with gender discrimination in rock climbing.

2. Secondary research findings related to women's experiences with gender discrimination in rock climbing.

3. Comparisons of women's and men's experiences in rock climbing.

Thirty relevant articles from 1998 to 2021 were selected for inclusion in the final review. Climbing related research is primarily conducted in the United Kingdom and the

United States of America; however, articles from Canada, Turkey, and Slovenia were also included. Analysis and synthesis of the selected articles were completed for clarity, consistency, and accuracy, using data extraction guidelines for mixed studies reviews by Pluye and Hong (2014). These include author, study date, sample (size and, for this review, gender of participants), study design, country, and outcomes found (Appendix A).

## Results

Seven main themes and relevant subthemes emerged from the literature review of women's experiences in climbing (see Table 3).

**Table 1**

Literature Review Themes and Subtheme

| Sports and Gender | Physical Determinants | Psychological and Sociological Determinants | Constraints | Social Dynamics of Climbing | Media |
|---|---|---|---|---|---|
| *Climbing and gender* | *Physical strength,* *Body image* | *Emotional intelligence,* *Self-efficacy,* *Emotional state and trait,* *Risk* | *Inter and Intrapersonal,* *Structural and familial* | *Motivation and partner choice,* *Treatment of women,* *Intimacy* | *Invasion of private life,* *Infantilization, Fragmentation,* *Over emphasis on appearance* |

**Sports and Gender**

Within the greater social context, gender expectations are socially constructed and dichotomously divided by hegemonic ideals of what is feminine and masculine. Hegemonic femininity defines the feminine as: emotional, passive, dependent, maternal, compassionate, frail, petite, and sexual. Hegemonic masculinity defines the masculine as

strong, competitive, assertive, confident, achieving, active, and independent (Knapp, 1985; Krane, Choi, Baird, Aimar, & Kauer, 2004; Plate, 2007). In sports, paradoxical concepts of femininity and masculinity are often magnified by separating women and men into different sporting leagues.

Societal norms differ in how girls and boys participate in what society defines as feminine and masculine sports (Chen & Curtner-Smith, 2015). Sports seen as feminine include gymnastics, figure skating, and dance; these sports emphasize beauty, grace, flexibility, and a thin, petite physique. In contrast, sports seen as masculine include assertive, rough, and competitive activities, such as football, hockey, and boxing. Male athletes are expected to have large physiques with well-defined muscles (Krane, 2001; Krane et al., 2004; Ross & Shinew, 2008). Most Sports are organized to embody and encourage socialized masculine skills and traits; it is not surprising that by the social definition of masculinity, which men and boys are socialized to embody/practice and women and girls are socialized to avoid, that males have an advantage in sports participation at both competitive and recreational levels. Sports have been organized as a place where individuals give their all, show aggression, compete to win at all costs, and where the strongest survive and win (Paloian, 2012). Sports are structurally built around hegemonic masculinity, where privilege and power are given to those who fit the hegemonic masculine mould. The organization of sports goes against how girls and women are socialized to perform femininity (Chen & Curtner-Smith, 2015; Krane, 2001; Krane et al., 2004).

Traditionally, women who participate in sports have described their experience as paradoxical. The paradox is created by the pressures of sports, requiring individuals to be aggressive and victorious, and the societal pressures placed on women to maintain the

image of hegemonic femininity (Krane et al., 2004; Paloian, 2012). Just as male athletes are idolized for their adherence to masculinity, female athletes find themselves idolized for their adherence to femininity (Alley & Hicks, 2005; Dworkin, 2001). Research shows that any athlete, male or female, who chooses to participate in sports that are seen as opposing to their gender norms encounters more difficulties throughout their careers (Alley & Hicks, 2005; E. Anderson, 2005; Dworkin, 2001). Female athletes experience this conflict at a higher rate than males because most athletics are dominated by masculinity (Dworkin, 2001; Krane et al., 2004). Many female athletes continue to contradict traditional beliefs of hegemonic femininity (Paloian, 2012). But, when women choose to violate gender norms by performing or building muscular physiques, commonly associated with masculinity, they are often labelled as lesbians (Halbert, 1997). To avoid being labelled a lesbian, some women will prevent increases in muscle mass or quit participation in sports altogether (Paloian, 2012). This paradox places unrealistic expectations and limitations on female athletes through gender differentiation. It diminishes athletic competence and limits how female athletes are perceived compared to traditional forms of hegemonic femininity.

*Climbing and Gender*

There is argument in the climbing community that rock climbing can be a more accepting sport for women to take part in because, as opposed to mainstream sports, it is a place where universal gender norms can be challenged (Appleby & Fisher, 2005; Chisholm, 2008; Dilley & Scraton, 2010; Dilley, 2007; Plate, 2007). This is based on the ideology that climbing requires a balance between masculine attributions such as strength, endurance, and competitiveness and feminine attributions such as flexibility,

grace, petiteness, and balance (Appleby & Fisher, 2005; Chisholm, 2008; Dilley, 2007; Plate, 2007). Meaning both men and women must be flexible, graceful, strong, petite, and competitive to succeed - a combination of feminine and masculine traits.

Studies indicate that gender divides become less prominent among women at higher climbing levels, and those with increased skill and competence, mainly at the professional and elite levels (Evans & Anderson, 2018; Evans & Gagnon, 2019). Women at this level were also found to play down gender discrimination experiences by explaining away interactions as either due to their actions or the nature of the sport (Evans & Gagnon, 2019). This suggests that gender discrimination may exist at this level, but these women do not perceive it, or at least not at the same level as women at amateur levels and recreational climbers. More research is needed to discover the factors contributing to this phenomenon, as no current study presents a systematic conclusion.

Generations of female climbers at all levels have felt marginalized, criticized, and discriminated against (Allee, 2011). Climbing may be more accepting of women because of its roots as a marginalized sport, traditionally not a part of mainstream sports (Abramson & Fletcher, 2007). However, many women still struggle to earn their place among men, who are often the gatekeepers of the sport and culture. For example, Appleby and Fisher (2005), in their research with female recreational climbers, found that all but one of their eight participants were introduced to rock climbing by a male climber. Participants also attributed their physical success in climbing to their male climbing partners, feeling that without these men, they would not have been successful in the sport. Wigglesworth (2021) found that traditional practices in climbing, particularly route naming, leave women feeling frustrated, excluded, objectified, and

sexualized. She also found that women felt frustrated and helpless to create change in climbing culture because they felt there was "nothing that could be done to change" misogynistic route names (p. 12).

**Physical Determinants**

Due to the increased popularity of rock climbing, especially competition climbing and the inclusion of climbing in the Olympics, research in this area has increased substantially over the last decade (Draper et al., 2015). A large portion of climbing-related research focuses on the physical determinants of rock climbing performance, including but not limited to: resistance training, muscle strength and endurance to enhance performance, handgrip strength, coordination, and hypoxia and cold weather conditions on performance in alpine climbing (Deyhle et al., 2015; Gurer & Yildiz, 2015; Hermans, Andersen, & Saeterbakken, 2017; Huey, Salisbury, Wang, & Mao, 2007; Manovski et al., 2018; Orth, Davids, & Seifert, 2016; Valenzuela, de la Villa, & Ferragut, 2015). Most research on physical determinants in climbing is conducted with men only, gender has not been specified, or gender differences were not tested. As physical gender differences in climbing were not the central theme of this review, an exhaustive search on the physical determinants of climbing was not conducted. However, initial search articles discussing physical differences in climbing physique, technique, body image, and body experiences emerged and are briefly discussed below.

*Physical Strength*

The gap in physical performance between male and female climbers has steadily been closing compared to more conventional sports (Carroll, 2021, Gurer & Yildiz, 2015; Manovski et al., 2018; Vodden-McKay & Schell, 2010). As previously stated, climbing

utilizes a combination of mental and physical skills, a balanced mix of calm, calculated movements that require coordination of strength, flexibility, balance, grace, and psychological skills. This combination of skills may partially account for how easily it has been for the physiological differences once found between men and women in climbing to reconcile slowly. Another contributing factor may be that women's participation and dedicated time to climbing has increased over the last few years (Allee, 2011; Appleby & Fisher, 2005; Phillips, 2017).

Gurer and Yildiz (2015), in their study of 114 elite climbers (females and males) from 22 different countries, found that handgrip strength was associated with increased endurance and performance in sport climbing. They also found that when accounting for gender and nationality, no significant differences in the handgrip strength between female and male climbers were found, except in climbers from Turkey. Male climbers from Turkey appear to have significantly higher handgrip strength than their female counterparts (29.2%). Still, they predicted that female climbers get less time climbing and training than their male counterparts, which could explain a decrease in handgrip strength in female climbers (Gurer & Yildiz, 2015). This prediction is based on a study by Draper, Jones, Fryer, Hodgson, and Blackwell (2008), which shows a correlation between increasing training hours, the number of climbs individuals do, and increased physical and psychological strength and endurance.

In a study of sixteen *World Cup* ice climbing competitors (8 females and eight males), Manovski et al. (2018) found no significant difference between male and female elite ice climbers in either speed (measured in time parameters) or applied technique. They attribute these findings to two different variables. First, women were found to spend more time in active movement and less time in pause (rest). Manovski et al. (2018) attributed

these findings to the likelihood that women have more attempts to set tools or put their legs in the proper position. Second, men needed more extended rest periods due to greater muscle mass compared to female climbers.

Four decades (1990-2005) of data on Mount Everest mountaineering completed by Huey et al. (2007) found that physiological performance related to hypoxia and resistance to cold weather are similar between men and women. Their study included information from 2211 mountaineers, and found that summit rates, overall death rates, and death on descent rates are the same for both men and women when climbing Mount Everest. Only age was a significant indicator of survival; the younger you are, the better your chances of survival, regardless of gender (Huey et al., 2007).

Research completed by Reeves, Boyd, Roul, McGowan, and Cameron (2017) and Evans and Gagnon (2019) show that gaps between females' and males' climbing ability and experiences within climbing culture are narrower at the elite and competitive levels, compared to recreational climbers. They concluded that this difference is associated with the social dynamics, between women and men, at the recreational level rather than physiological differences. This occurs because, at the recreational level, there appear to be more socially constructed gender constraints on women's ability to get out and climb. Women do not get as much time to climb and train as their male counterparts due to involvement in caregiver roles and more demanding jobs; women have also reported that it is more difficult for them to find climbing partners due to a lack of female participation in the sport compared to male involvement (Dilley & Scraton, 2010). Reeves et al. (2017) suggest that gender constraints in climbing may be socially constructed rather than physiological. It is also important to note that most climbing research regarding

physiological determinants has been conducted at the elite and competitive level; more research into the impact of physiological factors on recreational climbers is needed.

### *Body Image*

Discussions around negative body images and eating disorders are common in the climbing community, in blogs, magazine articles, and on social media platforms like Reddit ([r/climbing], 2016; Celine, 2015; Chrobak, 2018; Michael, 2019; Neely, 2018; Walker, 2020). Despite the discussions within the community, only a handful of academic research studies have been conducted looking directly at body image and eating disorders, which are full of contradictions. To assess the experiences climbers have with climbing body culture, body self-image, and self-esteem, Reeves et al. (2017) conducted semi-structured interviews with ten climbers between the ages of 19 and 46 (6 female and 4 male; and 6 recreational and 4 competitive). They found a direct correlation between one's level of climbing, competitive or recreational, to climbing experiences and body image. Competitive climbers display a greater risk for body dissatisfaction and eating disorders, and recreational climbers had overwhelmingly positive body image and body satisfaction due to participation in climbing. Recreational climbers also had increased confidence and trust in their bodies, not just when climbing but also in their social lives (Reeves et al., 2017).

In a study by Michael, Joubert, and Witard (2019), no differences were found between the twenty-two recreational and competitive youth climbers (9 females and 13 males). Scores on the *Eating Attitude Test* indicated that participants in the study had minimal risk for disordered eating. However, they found that 82% of participants did not meet their recommended target energy intake, 86% did not meet their target carbohydrate

intake, and 73% did not meet their target fat intake (Michael et al., 2019). Contradictions in the research around body dissatisfaction, body self-image, and eating disorders in athletes, both recreational and competitive, are common (Joy, Kussman, & Nattiv, 2016; Kantanista et al., 2018; Kong & Harris, 2015; Krentz & Warschburger, 2011; Swami, Steadman, & Tovée, 2009; Torstveit, Rosenvinge, & Sundgot-Borgen, 2008). What is consistent in the literature is that competitive athletes, both female and male, are at greater risk for body dissatisfaction and eating disorders (deBruin, Oudejans, Bakker, & Woertman, 2011; Gaines & Burnett, 2014; Kantanista et al., 2018; Kong & Harris, 2015). And competitive athletes from leanness-focused sports (sports that link body weight to performance and are judged on appearance), such as gymnastics, dance, figure skating, and climbing, can be at greater risk for body dissatisfaction and eating disorders. Athletes in leanness-focused sports are also found to experience pressure from coaches to maintain leanness (Joy et al., 2016; Kong & Harris, 2015)

Rock climbing is a leanness-focused sport, where leanness and low body weight are considered ideal for high performance (Horst, 2008a, 2008b). In climbing, your body type may impede or advance specific techniques and movement (Horst, 2008b; Reeves et al., 2017). Ideally, climbers believe that lean muscle mass, low body fat, and optimal strength-to-weight ratios are needed for maximum performance (Reeves et al., 2017). Mental and physical health also affect climbers' body image and climbing experiences. In Reeves et al. (2017), a recreational climber spoke about how societal ideals through social media and climbing media often negatively impacted her self-esteem and body image. But with the help of the peer support she received from other climbers, she felt more balanced. Reeves et al. (2017) found that their participant's self-esteem did increase over time with increased participation in climbing. It was also noted that women were more positively influenced by

the positive impacts climbing imposed on body image and self-esteem compared to male peers. However, competitive climbers did feel more pressure to fit the ideal climbing body image, exhibiting more negative and unhealthy body talk, and had an increased risk of developing eating disorders (Reeves et al., 2017). Competition climbers were also more likely to compare themselves to other climbers in body shape, weight, composition, and strength (Reeves et al., 2017).

Socially, women are taught to take up less space and be as small as possible (Wade & Ferree, 2015). Women's bodies are often limited to gestures, postures, and movements; they are expected to smile more, be ornamental, and be hairless (Wade & Ferree, 2015). Dilley (2007) found that for some women, climbing allows them to reach beyond limited spaces and expectations through stretching, reaching, pushing, and pulling. She found that women who climb can learn how to overcome the social limitations placed on them through societal hegemonic gender training. Women who climb learn how to liberate their bodies through free movement, which allows for building skills that increase physical competence and build unity with the body. Women who climb are found to have increased problem-solving and technical body knowledge, physical agility, and brain-body connections. The climbing experience can create an environment that challenges women's body movement, allowing them to move, excel, and enjoy their bodies freely. Dilley (2007) also notes that when male climbers instruct women, women find climbing less challenging and are less likely to understand their bodies and experience body positivity. This is because males often tell women how to climb and move, where the route goes, and what holds to use. Male instruction can lead to control over different climbing styles and limit climbing possibilities; this may not be intentional but an unplanned effect of male-only instruction (Dilley, 2007).

Just as women have to negotiate restraints on their leisure time, they have also been found to negotiate their way through body experiences. Appleby and Fisher (2005) found that women experienced three things when navigating climbing culture: 1) needing to comply with hegemonic norms, 2) questioning hegemonic norms, and 3) resisting hegemonic norms. All participants expressed having to comply with hegemonic norms to gain access to the sport and be accepted into the climbing community. They did this by gaining access through men into the sport and complying with hegemonic gender norms through self-presentation (Appleby & Fisher, 2005). Participants felt they had to maintain a certain hegemonic self-presentation; this meant making sure they looked cute when climbing. They did this by deciding what to wear climbing based on heterosexual appeal and comfort (Appleby & Fisher, 2005). But as these women became more committed to the climbing lifestyle, they began to question hegemonic norms. Through female role models, these participants recognized a clash between achieving climbing goals and societal standards of femininity (Appleby & Fisher, 2005). Despite this realization, these women continued to value a balance between ideal climbing bodies, such as strong arms and abs, and society's ideals of physical hegemonic norms of femininity. They discussed how they worked to build just the right amount of muscle in their abs and arms, but not to the point that they felt they looked too muscular. Appleby and Fisher (2005) concluded that in the attempt to question hegemonic gender norms, their participants were still aware that society, and even the climbing community, valued femininity over achievement. All participants stated that it was undesirable for female climbers to be muscular.

**Psychological and Sociological Determinants**

Climbing is a sport where individuals are constantly taking risks and where calm and calculated movements are critical, placing great emphasis on one's mental strength when climbing. Over the past decade, psychological and sociological studies of rock climbers have increased, especially regarding risk-taking behaviours, mood state and trait, and emotional intelligence. Like physical determinants in climbing, research examining psychological determinants shows minimal differences between male and female climbers. Differences arise mainly when accounting for differences in social pressures and expectations placed on women and men.

*Emotional Intelligence*

Emotional intelligence, in the case of climbing, is one's ability to disengage in emotional thought while climbing. In a study of forty-three female and male climbers, Garrido-Palomino and España-Romero (2019) found that emotional intelligence was more common among elite climbers compared to advanced climbers (elite climbers climb higher graded climbs than advanced climbers). These findings suggest that emotional thoughts may hinder climbing performance. But no significant differences were found in the emotional intelligence of the female and male climbers in their study (Garrido-Palomino & España-Romero, 2019).

*Self-efficacy*

Links between sensation-seeking behaviours, risk-taking, and self-efficacy are found in adventure/extreme athletes, such as freediving and rock climbing (Baretta, Greco, & Steca, 2017; Llewellyn, Sanchez, Asghar, & Jones, 2008). In rock climbing, self-efficacy is associated with the frequency and difficulty of medium to high-risk climbing behaviours

in outdoor and indoor venues (Llewellyn et al., 2008). This means climbers will participate more frequently in rock climbing, take more calculated risks, and try harder graded climbs when their self-efficacy is high. In a study of 116 climbers (28 female and 88 male), no significant differences were found between female and male climbers (Llewellyn et al., 2008). However, in a follow-up study conducted with 201 climbers (38 female and 163 male), differences were found between male and female climbers (Llewellyn & Sanchez, 2008); men took more significant risks than women when rock climbing.

No association was found between the climber's climbing experience, climbing performance, and risk-taking. There were also no differences in the frequency or climbing ability between females and males. The only difference noted was that men scored higher in self-efficacy. Llewellyn and Sanchez (2008) conclude that males take more risks due to more confidence in their ability to manage risk while climbing, which they attribute to higher self-efficacy scores. This aligns with research that finds women are less prepared than men for participation in outdoor activities due to many girls relative lack of preparation and early exposure to the outdoors at a young age. This lack of preparation often creates increased anxiety in outdoor adventures later in life (Warren & Loeffler, 2006). This study suggests that this is one of the reasons that women are found to be more anxious and less self-confident in outdoor activities.

### *Emotional State and Trait*

Emotional state and trait research in climbing is also standard; this includes assessment of state attributes such as anxiety, tension, depression, anger, vigour, fatigue, confusion, and mood overall, and trait attributes which include: power, success, failure, locus of control, and extroversion vs. introversion. Feher, Meyers, and Skelly (1998) found

that climbers as a group have similar attributes to other athletes, like those found in studies conducted on rugby, football, and rodeo athletes (Maynard & Howe, 1987; Meyers, Sterling, & LeUnes, 1988; Simpson & Newby, 1994). Only one difference in state attributes between male and female climbers was found; female climbers appeared to have more mood disturbances overall than their male counterparts. Differences in trait attributes were found in characteristics of power and success, showing that men are more power oriented and motivated for success. ÖZen (2018) looked at the state and trait anxiety levels of male and female university students who were members of the mountain climbing and rock climbing community. He assessed anxiety levels pre and post in three different activities. Activities included hiking (walking), camping, and climbing. No differences or anxiety were found in hiking activities for either gender. Camping and rock climbing significantly increased anxiety state scores for both genders but not trait anxiety scores. No differences were found between pre and post-tests anxiety scores. However, in comparisons between gender, there was a significant difference between state anxiety scores, showing that females were more anxious while participating in rock climbing.

*Risk*

Rock climbing requires some level of risk, risks which may lead to falls resulting in injury and death. Because of these risks, climbing is often categorized as an extreme sport and is associated with risk and sensation-seeking behaviours (Agilonu, Bastug, Mutlu, & Pala, 2017; Burnik, Jug, & Kajtna, 2008; Langseth & Salvesen, 2018). In a study of thirty-three female and male climbers conducted by Burnik et al. (2008), no significant difference was found between female and male climbers' scores on the overall *Sensation Seeking Scale*. This scale is broken down into five subcategories: *general factors* (desire

for an exciting life full of adventure), *factors of adventure and risk-taking* (passion for participating in unusual physical activities), *experience-seeking factors* (seeking out unique sensual or mental experiences, unconventional to ones' lifestyle), *disinhibition factors* (seeking pleasure, mainly sexual pleasure, and wild parties with happy and attractive people), and the *factor of boredom susceptibility* (rejection of repetitive events and routine). The only difference in subcategories found was that females were less likely to engage in *disinhibiting factors* based on lower scores in this subcategory.

Individual psychology cannot explain risk-taking, emotional intelligence, and confidence alone. Risk-taking, especially in sports and extreme sports, is often studied with a focus on sociological factors (Adams & Leavitt, 2018; Chang, 2017; Clayton & Coates, 2015; Creighton, Oliffe, McMillan, & Saewyc, 2015; Laurendeau, 2008; Worthen & Baker, 2016; Zinn, 2019). Socialized masculinity and femininity have a profound effect on how, when, and under what circumstances (life situations) both men and women choose to take risks (Adams & Leavitt, 2018; Chang, 2017; Connell, 2005; Creighton et al., 2015; Laurendeau, 2008; Lupton, 1999; Lupton & Tulloch, 2002). Like hegemonic gender norms, risk is also a socially constructed phenomenon that has been portrayed as aligning with and attributing to masculine ideologies of strength, power, control (mostly of emotions), and invulnerability (Clayton & Coates, 2015; Duncan & Messner, 1998; Koivula, 2001; Laurendeau, 2008). Through socialization, we have given boys and men the confidence and skills to take more extreme risks. Taking risks also protects the male identity, and extreme sports allow individuals to maintain certain lifestyles and images of heteronormative masculinity (Creighton et al., 2015; Kusz, 2004; Laurendeau, 2008).

Studies show that risk-taking can be directly linked to our ideas surrounding hegemonic masculinity (Adams & Leavitt, 2018; Chang, 2017; Connell, 2005; Creighton

et al., 2015; Lupton & Tulloch, 2002; Worthen & Baker, 2016; Zinn, 2019). Clayton & Coates (2015) show, through their fictional climbing representation of gender and parenting, that discourses of risk are gendered. We see this by looking at how fathers are less criticized for their actions and how mothers are deemed irresponsible when engaging in the same risk-taking activities as their male counterparts. As climbers, men and women navigate identity and leisure time as they build families. Many climbers, predominantly males, avoid close relationships to circumvent the competing discourses between risk and building bonds within relationships. When climbers choose to climb and have families, individual climbing identities are challenged (Clayton & Coates, 2015). For male climbers, this process is often more difficult and painful because the sport of climbing and the risks involved with the sport are so tied to their identity and the reproduction of heteronormative masculinities and homosociality. Clayton and Coates (2015) argue that the actual sacrifice of time and minimizing risks is more significant for women. Still, the transition is far less painful for women because their identity as women is more tied to their motherly role and less linked to risk-taking and climbing's male-dominated culture.

Creighton et al. (2015) highlight the importance of risk-taking as an expression of hegemonic masculinity tied to group affiliation in extreme sports. Because performance, strength, dominance, autonomy, and invulnerability are so tied to hegemonic masculine ideology, participants did not even allow the death of a friend to reduce the risks they were willing to take. In fact, in most cases, these participants became more solidified in their need to take risks and even increased their risk-taking behaviour (Creighton et al., 2015). Participants even romanticized their friends' deaths with ideas of youthfulness, strength, prioritizing hyper-performativity (above all else), heroism, and the idea of living life to the fullest - masking their emotions of weakness and vulnerability by continuing to participate

in the risky activity. Participants continued the activity with increased performance, power, fearlessness, and risk. No participant in the study even entertained the idea that their friend's death was needless or preventable (Creighton et al., 2015).

For boys and men, risk-taking is linked to needing to perform and maintain a specific image and identity, which is directly tied to ideas of hegemonic masculinity. Hegemonic masculinity also affects women and how they are regulated and controlled by masculine ideas of risk-taking (Adams & Leavitt, 2018; Chang, 2017; Clayton & Coates, 2015; Worthen & Baker, 2016). At the intersection of socially constructed hegemonic masculinity and femininity is where attitudes toward gender relations strengthen men's power and authority over women. For example, sport gender boundaries of masculinity and femininity are often regulated by men; this regulation often limits certain members of society from participation in sporting activity, especially at the professional level (Adams & Leavitt, 2018). The regulation of sports, primarily by men, preserves the sacredness of hegemonic masculine sports ideology and ensures the continuation of sports gender inequality (Adams & Leavitt, 2018; Kusz, 2004; Laurendeau, 2008; Robertson, 2007). Adams and Leavitt (2018) show that even with the increase in women's hockey participation, opportunities for girls and women are still far behind that of boys and men. By not allowing body checking in women's hockey, social systems of gender are being perpetuated. The excuse often given for this rule is that by not allowing checking, there is a prevention of the escalation of violence and the preservation of women's bodies (Adams & Leavitt, 2018). In other words, women's 'fragile' bodies are not meant to be put in a risky situation and sustain harm. Not only is this paternalistic, but it also gives a clear message to women that women's hockey is seen as inferior and different from men's (real) hockey (Adams & Leavitt, 2018; Laurendeau, 2008). By increasing the risk for men in the

game and not allowing the same risk to be taken by women, women are being prevented from embodying their potential and are often forced to maintain hegemonic masculinity through social norms.

Societal norms have done an excellent job of framing sports as naturally male, leading to boys and men often being more supported by parents, coaches, and communities when participating in sports. There is often more peer involvement in sports for boys and men, and society, including the media, portrays boys and men in sports as the social norm (Chang, 2017; Duncan & Messner, 1998; Koivula, 2001). This is evident in the participation rates in the United States and Canada, where boys and men are more likely to participate in sports and participate more frequently than their female counterparts (Chang, 2017). Laurendeau (2008) argues that risk is always interwoven with gender and is a response to socialization or challenges to socialization. Taking risks is central to specific versions of masculinity and is a "defining characteristic of sports central to masculinity". In review of the climbing literature regarding risk and men's ability to take more risks and be more confident in risk-taking, it is essential to remember that individual psychology is not the only factor in risk-taking. A sociological lens that considers socialized masculinity is essential to understanding risk-taking and risk aversion and how these choices are viewed and judged differently when performed by men versus women.

**Constraints**

As risk-taking and physical strength are highly associated with outdoor adventure activities, it is not surprising that these activities are associated with masculinity (Evans & Anderson, 2018). Due to this long-held association, women and girls have been less likely to be exposed to outdoor activities (Culp, 1998; Holland-Smith, 2016; Warren, 2016).

Exposure to expected gender roles often starts early in childhood. Fathers are more likely to take sons out on outdoor adventures while girls learn domestic skills with their mothers (McNiel, Harris, & Fondren, 2012). Institutional structures like *Girl Guides (*homemaking and artistic projects), in comparison to *Boy Scouts* (outdoor skills), often leave girls out of outdoor adventure because they lack the technical outdoor/survival skills needed to participate (Denny, 2011; Warren & Loeffler, 2006). Women are more likely to be deterred from outdoor leisure activities later in life due to familial obligations and a lack of female role models (Doran et al., 2018; Evans & Anderson, 2018; Vodden-McKay & Schell, 2010). Women and girls are also socialized to fear the outdoors because they are taught that it is a place they are not physically and psychologically safe; they develop fears of getting lost, injured, or experiencing physical harassment or violence, due to socialization (Culp, 1998; Warren, 2016; Warren & Loeffler, 2006). Media and cultural messages also limit women's feelings of acceptance in outdoor adventure (Allee, 2011; Warren, 2016; Warren & Loeffler, 2006). In an assessment of outdoor adventure media, advertisements, and guidebooks, women are depicted as less physical, often followers and not leaders, or depicted in participation with their children or families (Warren, 2016). They are even sometimes depicted with a more negative view of using outdoor activity to escape motherhood obligations (Frohlick, 2006; Gilchrist, 2007; McNiel et al., 2012).

Studies assessing constraints to leisure pursuits to participation in outdoor adventure activities (hiking, rock climbing, ice climbing, mountaineering, and alpine climbing) often utilize Crawford and Godbey (1987) leisure constraint categories. These include *interpersonal*, *intrapersonal*, and *structural constraints.* In a study completed by Doran et al. (2018), family obligations as a constraint to participation in mountaineering

leisure activities were so prominent in their findings that it was moved from interpersonal

constraints, and *family* became the fourth theme found in leisure constraint studies.

### *Inter and Intrapersonal*

Constraints to leisure activity do not necessarily indicate that individuals who face

these constraints fail to participate in the activity or that constraints must be eliminated for

participation to occur (Doran et al., 2018; Evans & Anderson, 2018; Evans & Gagnon,

2019). Constraints often need to be negotiated by individuals, leading to changes in how

participation is achieved. For example, Evans and Anderson (2018) found that the three

female mountain guides in their case study encountered stereotypical gender expectations,

considered interpersonal leisure constraints. These women encountered other guides,

employers, and even customers who felt they could not be adequate mountain guides

because they were women. These women felt they had to be better mountain guides than

their male coworkers "to be [seen as] half as good" (p. 19). Meaning they worked twice as

hard only to be seen as half as good as a male mountain guide. But these women persevered,

and like other women who chose occupations in outdoor adventures, they developed

negotiation strategies to combat gender assumptions. They did this by gaining social

support from other women, in and outside the profession; they built resilience strategies

and relied on their unwavering passion for mountain guiding to keep them in their

profession. Evans and Anderson (2018) found in their study that female mountain guides

often choose mountain guiding to resist social norms imposed on them. Even though they

encountered interpersonal constraints to pursuing their careers as mountain guides, they

also found ways to negotiate through these constraints.

For these mountain guides, intrapersonal constraints also surfaced. Fearing death, letting down clients, getting hurt, and the fear of not having enough skills to be successful arose. These women also discussed feeling a significant lack of confidence in their abilities, especially in the early stages of their training. This and fear were still a part of their everyday lives as guides in the present. They never felt quite good enough and often felt that there were always limits to their personal development and progress (Evans & Anderson, 2018). Because interpersonal constraints were related predominantly to gender assumptions, these women developed intrapersonal constraints due to how they were treated. Women were more often questioned on their skills as guides. For example, one guide recounted a story where she guided a group through whiteout conditions, and a client would not believe she knew where she was going. The client kept asking another client, who was an airline pilot, to guide them because he felt he was more qualified in navigation. When he refused, the client then asked the support mountain guide (who would most likely be in training) if he would guide them. This client outright refused to believe the female mountain guide and thought any other male in the group could lead them to their destination over her (Evans & Anderson, 2018). Another guide recounts how a male guide she worked with in Nepal started yelling at her when she asked him for information. He refused to give her the information she needed to fulfill her role; she felt he was treating her like an idiot because she was a woman (Evans & Anderson, 2018).

### *Structural and Familial*

Evans and Anderson (2018) found a shared context among women in their study. Each stated that mountain guiding is a "man's world" (p.22), and they all had to rely on men to gain entry to the industry and throughout all phases of their careers. For example,

each woman had to rely on a male guide as a companion, mentor, or technical skills teacher, to develop the skills they needed to become guides or help them find employment as guides. Each woman in this study attributed her success in mountain guiding to a male who helped them gain access and entry into the profession (Evans & Anderson, 2018). These women all discussed that mountain guiding needed more females in the profession; this includes more female guides, more instructors in mountain guiding training, more women in guiding organizations and more women as guiding business owners and employees. All of them felt that for this to happen, they would need to support other women wishing to pursue the industry; mentoring other women was their way of paying it forward (Evans & Anderson, 2018).

As discussed earlier, all women had to develop negotiation strategies; these included: reliance on social supports, resiliency strategies, and unwavering passion. Social supports were found in the way of other female mentors, relying on friends and family, and some even found support in clients. Resilience strategies included: finding a balance between family life and careers, managing the attitudes of clients and other guides by ignoring gender stereotyping comments, and one woman discussed how she interacted with other guides like "distant" brothers to avoid giving them the "wrong idea" (Evans & Anderson, 2018, p. 21). All the women in this study identified an unwavering passion for outdoor adventures, specifically mountain guiding, as the foundation of their careers. They used this foundation as a way to face the adversity they experienced. Despite these adversities, as noted by Evans and Anderson (2018), "each [individual] got involved in mountaineering on an amateur level but successfully ascended to the professional level of mountain guiding. "[These women are] encouraging, as it seems to indicate that women

can find their way into outdoor adventure recreation participation in a variety of ways and succeed" (p. 25).

Similar leisure constraints were identified in a study on women's mountaineering tourism (Doran et al., 2018). Participants were not mountain guides but females who participated or wished to participate in mountaineering on some level. Participation in mountaineering included: at least one night away from home and participation in mountaineering activities or courses (bouldering, rock climbing, snow and ice climbing, and mixed (rock and ice) climbing). Doran et al. (2018) found intrapersonal constraints to be a key barrier to mountaineering tourism participation; however, unlike previous research, family constraints were prominent and even more significant for women who only recreationally climbed in women's-only groups. Doran et al. (2018) were unclear on the reasons for this finding, as previous research found only women's groups to be good support for women. They suggest future research is needed on this topic, including examining critical barriers they found to participation: cost, lack of knowledge of climbing routes, concerns about fitness levels, and climbing ability. They also suggest that research within a particular age group who are caring for young children is needed. Media was also found to be a barrier, as women, with and without children, are not well represented in adventure tourism industries (Doran et al., 2018).

Relationships with children limit women's climbing experiences. Many women want to pass their love of climbing onto their children. Some people in the climbing community and the general public find it irresponsible to have children in such dangerous climbing environments (Frohlick, 2006). Having toddlers at the crag can be challenging as they want to put everything in their mouths (Allee, 2011). Mothers have the added pressure of caring for children when at the crag with their family; societal roles of the mother often

take on more child-minding responsibilities, and this does not change in the context of climbing with children (Gilchrist, 2007). Navigating any relationship with children, romantic partners, and climbing partners can be challenging and another added pressure that women face when choosing a life of climbing.

Research shows that leisure constraints can be significant barriers to participation for female climbers at the amateur level and in guiding (Doran et al., 2018; Evans & Anderson, 2018). However, moving into elite and professional competitive climbing, leisure constraints appear to be no longer relevant. Evans and Gagnon (2019) found no difference in perceived constraints between male and female competition climbers and no difference in participation levels. They conclude that there is an increase in commitment to the sport in competition climbing and that with the increase in commitment to climbing, there are more supports for climbers. Increases in support through coaching and teammates may be why these women no longer recognize constraints or constraints cease to exist due to advanced negotiation strategies (Evans & Gagnon, 2019). The researchers concluded that gender integration increases at this level, thus narrowing the gender divide. However, researchers indicate that more research is needed to determine why gender does not appear to play a role in participation constraints at the competitive level.

The existing body of research done at the recreational and amateur level of climbing indicates that leisure constraints exist for female climbers. Studies show that many social constraints impede women's participation in climbing and other outdoor adventure activities (Doran et al., 2018; Evans & Anderson, 2018; Evans & Gagnon, 2019). This is true for many minority groups, as social class, wealth, and education, are highly correlated with one's participation in climbing (Gems, 2017; Holland-Smith, 2017). The skills required to climb and the equipment needed come at a high cost, becoming a barrier for

many marginalized and low-income individuals. As this research focuses on women's climbing experiences, I have been predominantly focusing on women's experiences. I must take the time to acknowledge and recognize that the barriers I have been discussing are often magnified when looking at intersectionality and other marginalized groups.

**Social Dynamics of Climbing**

Social dynamics are fundamental in climbing. Climbing is a time-consuming sport requiring climbers to spend much time close to their climbing partners. For example, partners often spend time driving to the mountains together, relying on each other for safety during climbs to avoid falls, sharing camping accommodations like tenting together to maintain access to climbing areas or working together during long climbing routes (multi-pitches). Unlike traditional sports, climbing is dangerous in nature and requires trust in one's partner. Moreover, emotions and insecurities that may arise while climbing can foster close relationships (Plate, 2007). Because women are becoming more prominent in the climbing community, and due to the higher volume of male climbers compared to female climbers, inter-sex climbing partnerships are common, making climbing an ideal sport to study gender, social relationships, and dynamic social negotiations (Plate, 2007).

In general, when looking at the research, both men and women in the climbing community report a sense within the community that women are welcomed. Both women and men discuss how seeing strong and successful female climbers is inspiring, how they enjoy or even prefer climbing with women, and how they go out of their way to encourage and support women in climbing so that more women will participate (Allee, 2011; Kiewa, 2001b; Plate, 2007). One male participant in a study by Allee (2011) stated that "top female climbers are better than 95% of the male climbers, no doubt" (p.33). However,

contradictions are present, as some women report feeling unwelcomed, intimidated by men, and like they have to be better than men to be accepted (Allee, 2011; Appleby & Fisher, 2005). Respondents in Allee (2011) felt that the younger climbers were more accepting and positive about female participation in the sport. However, they also stated that they had encountered older climbers who greatly appreciated their female peers. Plate (2007) feels discrepancies arise due to how we study relationships in different contexts. She discusses how in traditional climbing, as opposed to sport, bouldering, and other forms, a more supportive community exists that imposes fewer gender expectations. Trad climbing requires a higher level of commitment and increases risk due to more room for human error. With the increase in risk, more prosperous and complex relationships form between climbers, and with trad, there is more emphasis on taking turns to lead the climb. One female trad climber in Plate (2007) stated that leading gave her independence, implying that being unable to lead meant one was dependent on other climbers. Discrepancies in the literature also suggest that, as in life, female climbers are not one homogenous group; the factors that motivate climbers are numerous, and hence the experiences among women in climbing are numerous.

*Motivation and Partner Choice*

It has been a long-standing idea within the climbing community that men and women are motivated to climb with certain climbing partners based on stereotyped hegemonic ideas about gender (Kiewa, 2001a, 2001b). It was initially found that men look for partners that offer safety, friendly competition, and enthusiasm, and some stated that the laid-back attitudes of women ruined the energy of climbing. Women in the same study emphasized relationships, teamwork, and similarities in competence levels (Kiewa, 2001a).

These women did not want the pressures that came with male enthusiasm. Although some climbers were found to resist stereotypes, relationships in climbing regularly mimicked greater societal stereotypes; the women were more focused on the relationships in climbing and the men were more focused on the climbing (Kiewa, 2001a). However, when these participants were further interviewed, men's focus on relationships in climbing and women's care about safety emerged, suggesting similarities not first noticed (Kiewa, 2001a). Plate (2007) found no apparent dichotomy or reasons why men and women climbed or how they chose a partner to climb with. However, this study and many others did identify numerous reasons why women decided to climb with other women and why they sometimes avoid climbing with men (see Table 4) (Allee, 2011; Kiewa, 2001a, 2001b; Plate, 2007).

**Table 2**

Women's Reasons to Climb with Women and Avoid Climbing with Men

| Why women chose to climb with other women | Why women may avoid climbing with men |
| --- | --- |
| • They can climb harder | • Women feel they doubt themselves more when climbing with men |
| • Inspired by other women | |
| • Feel they can be themselves | • Feel men want them to fail so they can feel better about their skills |
| • Lead more | |
| • Feel more confident | • Unwanted advice |
| • Less focus on relationships | • Patronizing, competitive, and frantic |
| • More climbing, fun, and competitive | • Unwanted intimate or sexual advances |
| • Less ego | |

| | |
|---|---|
| • People know they are strong because they cannot assume the "man did it all" | • Men are always assumed to be the leader or more skilled climber |
| • Easier to gain partners' respect | • Feelings that you have to accomplish more to be accepted or respected |
| • More relaxed | • Men want to cram as much climbing in as possible |
| | • Mixed messages, to be dependent but capable are given by men to women |

Nonetheless, exceptions were also noted. Some women were found to prefer climbing with men because they perceived men as more enthusiastic and focused climbers. Some men preferred to climb with women because they were perceived to be less competitive, more spiritual, and they found women more motivating. Whatever the perceived reasons were, there was something interesting in common; for the most part, both men and women shared stereotypical gender expectations of themselves and the opposite sex.

Commonalities between men and women were also noted. All climbers spoke about climbing as a place of resistance and conformity and valued what climbing offered them; a sense of achievement, existential celebration, personal triumph, a place to learn about self, courage, control, self-determination, and a place to engage in the natural environment that was seen as sacred and vulnerable (Kiewa, 2001a). Even though commonalities exist between female and male climbers, individual variations on conformity to stereotypes can make it hard for men and women. For women, stereotypes make it hard to establish credibility as serious climbers (Kiewa, 2001a; Plate, 2007). For both men and women,

stereotypes resulting in refusal to climb with a partner of the opposite sex can mean missing out on the opportunities to learn and become better climbers.

### *Treatment of Women*

Despite commonalities and shared views of gender expectations, there is no doubt that women feel they are treated differently than their male peers (Allee, 2011; Chisholm, 2008; Dilley, 2007; Frohlick, 2006; Hill, 2002; Summers, 2007; Vodden-McKay & Schell, 2010). Some of this comes from societal roles between men and women that make it more challenging to be a female climber. In society, women are still expected to do the majority of domestic caretaking work and struggle more than men to develop themselves professionally in their choice of employment (Allee, 2011). Research shows that men will take more time to prioritize leisure, and women are more likely, through social expectations, to move away from self-fulfilling activities when they become parents (Yerkes, Roeters, & Baxter, 2020). Women who choose to work need twice as long to build their careers and work twice as hard to gain acceptance and equal pay in their chosen professions as their male peers (Bishu & Headley, 2020). This time is often made up through loss of leisure and self-care. Many female climbers choose to live without children, give up climbing when they become mothers, and lower their risks when climbing after they have become mothers (Summers, 2007). Although, there is evidence that men struggle when they become climbing fathers: with the guilt felt when leaving children, missing children while on long excursions, and fear of leaving children parentless (Summers, 2007). Mothers often feel the additional burden of being judged more harshly for their choice to climb than male peers (Allee, 2011; Frohlick, 2006; Summers, 2007).

Alison Hargraves might be the most prominent example of the harsh criticism given to mothers who climb. After her death on K2 (one of the world's deadliest mountains), Hargraves was portrayed by the media as a selfish woman, thinking of herself first and putting her children second, and obsessed with only climbing. The story that was not told by the press was her expression of her struggles stated in a seminar at the Banff mountaineer festival, "The last thing I want is to be killed on one of the big mountains. I have two small children, and I don't want to be without them, and I don't want them to be without a mother" (Frohlick, 2006, p. 483). These are not the words of a selfish person; they are the words of a woman who, as eloquently stated by Summers (2007), "dearly loves her children but who also feels an overwhelming obligation to the mountains" (p. 3). Only days before Hargraves died on K2, two mountaineers and fathers died on K2. Even though they left wives and children behind, they were not criticized for their choices, not portrayed as selfish or ridiculed for taking the same risks Hargraves did (Allee, 2011; Frohlick, 2006; Gilchrist, 2007; Summers, 2007). Hargraves is not the only mother to experience criticism from the press and other climbers. It is common for women to be portrayed in the media as mothers first and then to experience criticism for their choices, compared to their male peers who are very seldom even portrayed as fathers and even less frequently criticized (Allee, 2011; Frohlick, 2006; Gilchrist, 2007; Vodden-McKay & Schell, 2010).

Many women, like Hargraves, are seen merely as mothers and not as competent climbers. They feel they are being treated differently than male climbers. There are numerous ways women are treated differently from men in the climbing community. Women climbers report that men are nicer to them and treat them more delicately than male peers (Plate, 2007). Men often offer to belay women more and carry more gear (assuming women cannot carry their gear) (Plate, 2007). Women report feeling watched more, which

they state is not necessarily bad or good. People maybe want to see what women can do. Observers almost always assume when women are climbing with men, that men are the leaders. Often when observers or other climbers approach groups with questions, they talk to the group's males (Allee, 2011; Plate, 2007). Women's skills are often underestimated; they are seen as less strong, less knowledgeable, and less competent within the climbing community. Male climbers often encourage women to climb easier routes (Plate, 2007).

One of the most frustrating differences found in the literature is that women often receive more unsolicited and unwanted advice; this includes men telling them where routes go and giving them beta (suggested sequence of moves that unlocks a problem) (Allee, 2011; Plate, 2007). This is frustrating because the problem-solving aspect of climbing is then gone; it robs women of the fun of figuring it out for themselves (Allee, 2011; Plate, 2007). A participant in an (Allee, 2011) study expressed that as a "self-identified masculine woman", she does not get as much unsolicited advice as women who present as more feminine (p. 65). This participant has encountered women who feel very upset by unsolicited advice because it feels like an insult and men underestimate their experience and intelligence (Allee, 2011).

Although research has shown that competitive and elite female climbers experience less discrimination and constraints on leisure activity, they are still treated differently at the professional level (Evans & Anderson, 2018; Evans & Gagnon, 2019). For example, more men set routes indoors and outdoors, so naturally, men set the standard of climbing (Bruijn, 2019a; Crush, 2013). However, when women choose to climb a route in a way that suits their strengths, they are often accused of cheating because it is not the way a man would climb it (Allee, 2011; Chisholm, 2008; Plate, 2007). There is also a practice of lowering route grades once a female ascent has been accomplished, a practice that is insulting and

fails to acknowledge the hard work and dedication of elite female climbers (Allee, 2011; Chisholm, 2008). Even at the professional level, women must accomplish more than their male peers to be recognized (Chisholm, 2008; Doran et al., 2018). Allee (2011) also found that elite female climbers are more sexualized than male peers. Women feel that to be recognized, they have to sell their sexuality, something male climbers do not feel pressured to do.

A first assent records the first time a climber completes a route. The first female assent is the first time a woman completes a route that a man has previously ascended. Within the climbing community, it is argued that recording the first female assents recognizes female accomplishments and gives women a chance to relate better to other women's achievements (Allee, 2011). Others suggest that it is unnecessary and only reinforces sex differences (Allee, 2011). In the study conducted by (Allee, 2011), some participants expressed their positive views on maintaining the practice of recording first female assents, as they felt this practice was positive for women in climbing; others claimed first assents should be recorded as "first assents" no matter what the sex of the individuals is. Records of the first female ascent provide women recognition for their accomplishments, something they have had to fight to get in the media (Allee, 2011; Vodden-McKay & Schell, 2010).

*Intimacy*

Intimate partner relationships with climbers and non-climbers affect women's participation in climbing. Climbing partnerships are often referred to as "marriages"; putting your life in the hands of another requires a certain level of trust, and intimacy in the form of friendships and intimate partner relationships often materialize (Allee, 2011;

Kiewa, 2001a). One male participant in a study by Allee (2011) explained that he shared his deepest secrets with his wife and male climbing partner. Because of the necessity to have close intimate relationships with climbing partners, when climbers, male or female, find themselves in a climbing partnership with someone of the opposite sex, sexual tensions and jealousy from romantic partners can occur (Allee, 2011; Kiewa, 2001a). When asked about forming climbing partnerships with individuals of the opposite sex, both women and men stated that they avoid climbing with individuals who showed interest in a romantic relationship. Developing romantic relationships with your climbing partner often means that if the relationship ends, you could lose a good climbing partner (Allee, 2011). Just as negotiations allow women to continue climbing when faced with leisure constraints, women find ways of negotiating climbing partnerships and romantic relationships that enable them to maintain climbing and romantic relationships. Some women do this by choosing to refrain from being in romantic relationships with climbing partners, by only climbing with men they are in long-term committed relationships, or women (Allee, 2011). Female participants in (Allee, 2011) discussed how they sometimes had to mitigate their romantic partner's jealousy of their male climbing partners or even their commitment to climbing. One participant changed the way she discussed her male climbing partners with her boyfriend by referring to their male climbing partners as brothers. Another participant stated that she would end any relationship with a male climbing partner if they developed a crush on her. Other female participants expressed how they had been seeking out more female partners to climb with to curb the jealousy in their romantic relationships. One participant discussed how her partner was not jealous of her climbing partners but was jealous of the time she spent climbing; hence she chose to climb on her lunch break as she found this easier than taking time away from her partner (Allee, 2011).

Issues also arise for women who choose to be in romantic relationships with other climbers. Participants in Kiewa (2001b) discussed how they felt it was harder to maintain the independence they had developed through climbing when they were in a relationship with their climbing partner. One participant reported contradictory pressures from her climbing partner/boyfriend to be vulnerable, which she felt made her more attractive to him, and to maintain focus and strength, which she also felt impressed him. Female professional climbers in a romantic relationship with professional male climbers are more often identified in the media through their ties to those male climbers. Beth Rodden, a professional climber even before her relationship with Tommy Caldwell, was often referred to in the press as Tommy Caldwell's wife or girlfriend when they climbed together, diminishing Rodden's independence as a climber and her accomplishments. This is common in the climbing community and is seldom, if ever, reported the opposite way, with a male climber portrayed as Jane Doe's husband (Allee, 2011; Vodden-McKay & Schell, 2010).

**Media**

Differences in the way the media covers female athletes are prominent. For example, in the analysis of the last sixty years of *Sports Illustrated* magazine, men had more coverage overall than women (Dafferner, Campagna, & Rodgers, 2019). Female athletes were also more likely to be depicted smiling and posing for the camera in ways unrelated to their sport. Male athletes were portrayed as engaging in physical activity, generally in their sport (Dafferner et al., 2019). These findings are consistent with other media studies comparing coverage of female and male athletes (Dafferner et al., 2019; Frisby, 2017; Marshall, 2016; McClearen, 2018; Vodden-McKay & Schell, 2010).

In general, media coverage in sports promotes hegemonic masculinity. It celebrates hegemonic femininity, and the over-sexualization of female athletes through advertisement depicts them as less serious competitors and is objectifying (Marshall, 2016). Sports media does not depict women's advances in their societal quest for equality and equity. In sports media and advertisement, what is marketable is what matters, and as McClearen (2018) states, "straight, white, able-bodied, and powerfully feminine" is what sells (p. 944). Some women even play into the expectation to balance masculine interests with femininity, known as the *Feminine Apologetic*; women can "get away with being masculine as long as she also sends clear signals that she wants men's approval" (Wade & Ferree, 2015, p. 164). This is often done through women displaying their sexual attractiveness through self-sexual objectification to gain attention and promote themselves (Wade & Ferree, 2015). Sports media continues the long-held tradition of sexually objectifying female athletes for the pleasure of male audiences. Men's athletic events also receive far more coverage than women's events. Differences occur in how female athletes are referred to among the press by first names, while men are called by their last names. Women are often called 'girls' or 'young ladies', no matter their age, and men are called men (Allee, 2011; Marshall, 2016; McClearen, 2018). Media in the climbing world may show some advancement. Still, according to Vodden-McKay and Schell (2010), climbing media coverage does "little to encourage female participation in rock climbing or to challenge stereotypical notions of female athleticism" (p.150). In their assessments of popular climbing magazines *Climbing* and *Rock and Ice,* Vodden-McKay and Schell (2010) and (Allee, 2011) find similar themes to those in mainstream sports. There is an emphasis on women's heterosexuality (as wives, mothers, or girlfriends), a focus on physical appearances, the infantilization of female rock climbers, the over-sexualization of female climbers through fragmentation, and the

underrepresentation of women through photos and publications. To increase female participation and challenge stereotypes, female representation and narratives must increase.

As seen in Table 3, there is a low percentage of women in climbing magazine photos, featured articles, and articles published by women. Men receive much more attention in climbing media (Allee, 2011; Vodden-McKay & Schell, 2010).

**Table 3**

Comparison of Media Analysis (Vodden-McKay & Schell, 2010; Allee, 2011)

|  | **Vodden-McKay & Schell 2010** | **Allee 2011** |
|---|---|---|
| **Year of Publications Assessed** | 1992-2004 | Spring 2008 (19 issues of each magazine from this time forward) |
| **Magazines** | *Climbing* | *Climbing and Rock and Ice* |
| **Number of Issues Assessed** | 114 | 38 |
| **Cover Photos Featuring Women** | 18 (16%) | 11 (29%) |
| **Articles Featuring or Written by Women** | 13 (3%) (featured) | 191 (20.5) (written by) |
| **Photos** | 16 (14%) gallery and 14 (12%) table of content photos | 985 (24.2%) |

It is also essential to look at how women are represented in climbing media and how women's representation portrays female climbers in relation to gender expectations and stereotypes. Allee (2011) found that the difficulty (grade) of the climb women were depicted climbing in photos was much lower than that of men. The lowest grade men were shown climbing was 5.11c, and the lowest a female was depicted climbing was 5.8. This is a much greater discrepancy than the difference between what professional females and

males at the time were climbing; Beth Rodden climbing a 5.14 and Chris Sharma on a 5.15b. Historically in sporting media coverage, women have been portrayed as passive observers rather than active participants. However, in *Climbing* and *Rock and Ice* magazines (Allee, 2011) found very little difference between the depiction of women (29%) and men (25%) in passive observation and Vodden-McKay and Schell (2010) found the photos in their study, for the most part, showed female climbers in active participation. They also noted that women were depicted in clothing that would most likely be worn while climbing, tank tops, sports bras, shorts, or light pants. Both studies found that women were depicted as a homogenous group, young, white, able-bodied, and with long hair (Allee, 2011; Vodden-McKay & Schell, 2010). Highlighting physical appearance has been a way for sports media to maintain hegemonic ideas of femininity; it would appear that climbing maintains this same milieu. Potentially more detrimental than the hegemonic depiction of women in climbing is the narrative utilized by mainstream sports media to objectify women to fit the heteronormative view and maintain hegemonic gender ideals. These include *The Invasion of Private Lives, Infantilization, Fragmentation, and Over Emphasis on Appearance.*

### *Invasion of Private Lives*

Invasion of female athlete's private lives has been one tactic that sports media has used to fight against the challenge that female athletes present to hegemonic ideologies in society (Messner, 1988, 2011). Eight of 13 articles assessed by Vodden-McKay and Schell (2010) authenticated this. Female climbers were referenced in relation to their romantic relationships with men or raising children, making the reader aware that these women were heterosexual and fitting into their "natural" domestic role, despite their choice to engage in

what is deemed a "masculine" sport (Vodden-McKay & Schell, 2010). For example, an article on Beth Rodden focused more on her wedding plans to Tommy Caldwell than on the climb she was attempting to finish. Another article featured Sue McDivitt and depicted her as a "cheerful homemaker" who always ensures her husband's dinner is ready (Vodden-McKay & Schell, 2010).

*Infantilization*

Infantilization is used to demean women, making them appear weaker or less than. Making them appear on the level of children, sending a "message (Richalet et al.) they are not to be taken too seriously" (Vodden-McKay & Schell, 2010). Infantilizing statements like small in size, girl next door, childlike, country-girl, sweet, and innocent; suggest that women are younger than they are and were found by Vodden-McKay and Schell (2010) in many of the climbing articles they analyzed. Statements like these cheat women of acceptance as equals in climbing by disempowering them and taking focus away from their achievements (Vodden-McKay & Schell, 2010). Infantilization is a form of gender discrimination that prevents women from being seen as mature and capable and creates inequality. This type of discrimination is frequently found in climbing media's representation of female climbers and is similar to the representation of female athletes in sports other than climbing (Bernstein, 2020; Delorme & Amy, 2016; DiCarlo, 2016; Huot, 2013; Litchfield & Kavanagh, 2019; Mazur, Organista, & Dziubiński, 2018; Vodden-McKay & Schell, 2010).

Women who embody rigid patriarchal feminine ideals are often favoured in sports media and receive more exposure (Vodden-McKay & Schell, 2010, p. 139). Women climbers, like other female athletes, are caught in a paradox; inconsistent messages to win,

be strong, and be female role models, exist amongst patriarchal messages to remain as feminine as possible. Female climbers are expected to maintain a toned body, have long hair, and appear feminine, even if these features hinder their climbing ability. Although male athletes feel the pressure of maintaining hegemonic masculine standards, male athletes do not experience the paradox that female athletes face. This is because the standards of hegemonic masculinity are commensurate with the behavioural and body image standards expected of athletes (Dworkin, 2001; Halbert, 1997; Krane et al., 2004). The message of maintaining hegemonic femininity suggests to girls and women that being beautiful is more important than achieving (Allee, 2011; Dilley, 2007; Vodden-McKay & Schell, 2010).

*Fragmentation*

Fragmentation is a way to emphasize women's bodies and objectify women through photography (Marshall, 2016; I. M. Young, 2005), and is accomplished by showing women from the back or headless shots that focus on women's torsos. In these photos, women are often depicted doing nothing related to their sport. With no clear image of women's faces, there is nothing to make these women human, and she remains emotionless, " just an empty shape [that fits] men's desires" (Allee, 2011, p. 80). Photos of fragmented women were found in the study (Allee, 2011). For example, one advertisement for quick draws and ice tools, produced by *AustriAlpin*, and published in *Climbing Magazine* (issue 226, the year 2008)*,* shows a fragmented image of a woman. In the ad, you can only see the woman's lower body; she is shown standing on the balls of her feet, with her legs spread apart; she is wearing only climbing shoes and is holding a quick draw in one of her hands. The caption covers where her underwear should be and reads "nearly nothing". As Allee (2011)

intelligently questions, "[how would she] utilize these products in her naked state?" (p.83). If you know anything about climbing, you know that using quick draws and ice tools would require her to wear at least a harness. This ad generated several complaints to the editor. In these letters, individuals expressed they were shocked to see such an ad and several made statements that they were left wondering what the ad was trying to sell (Allee, 2011). Even after the letters to the editor, the ad was rerun in a later issue of *Climbing Magazine,* issue 274. This time with a much smaller version of the same woman; you could see her white underwear. Interestingly, in this ad, she is still holding the quickdraw, even though the ad was now being used to sell ice tools. Other discriminating photos from a competition climbing event were found (Allee, 2011). One depicts two women, one wearing a sports bra and the other taking off her shirt to reveal a sports bra. Both women can only be seen from behind, and neither is doing anything related to climbing. These photos were published in an article in 2008. The second photo was a headless shot of a woman's torso; from her bulging muscles in her arms, the reader can assume she has been climbing, but there is no way to tell how she might feel about her climb as she is headless and thus emotionless. No sexualization or fragmentation of male climbers was found (Allee, 2011). Depicting women as objectified body denies them their unique individuality and leaves readers open to their interpretations and fantasies about these women.

### *Over-Emphasis on Appearance*

Female climbers have often engaged in climbing and the "dirt bag" persona because it allowed them to feel liberated and not have to keep up with mainstream expectations (Allee, 2011). Although female climbers appear in photos with much less, if any, make-up and usually do not have the same level of manicured hair as women in mainstream media,

there is still a certain acceptable feminine climber look. In climbing communities and media, this look is often called the dirtbag look (Lineberry, 2015). Historically, a dirtbag climber is considered someone who dedicates their life to pursuing climbing. Because of this lifestyle choice, these individuals, male or female, must be creative in making ends meet. They do not usually hold a mainstream nine-to-five job with a good income. Rather, dirtbag climbers seek temporary employment as they travel from climbing area to climbing area (Lineberry, 2015). An actual dirtbag climber will wear comfortable clothing bought from thrift stores and is often dirty. She will often have longer un-kept hair, because living in tents is not conducive to high-maintenance hairstyles (Allee, 2011). Interestingly, the authentic dirtbag look is not often depicted in climbing media, and it is less shown in photos of female climbers vs. male climbers (Allee, 2011; Vodden-McKay & Schell, 2010). Instead, there is now a more acceptable, more manicured dirtbag look depicted in climbing culture. What is seen in climbing media nowadays can be referred to as the poser dirtbag (Lineberry, 2015). Similar to a dirtbag look, however, the clothing is usually name-brand and expensive; Patagonia, Black Diamond, and Arc'teryx, to name a few. The dress would also be cleaner, with some dirt or climbing chalk placed in specific places to show that the person is using chalk and working hard, but not too much to look completely un-kept. What is ironic is that true dirtbag climbers would not be able to afford these articles of clothing unless they were found in a second-hand thrift store. The hair of a female poser dirtbag would also be more manicured, long, usually in braids or a ponytail, and manicured to look slightly messy and still kept simultaneously (Allee, 2011; Vodden-McKay & Schell, 2010). This acceptability of the poser female dirtbag holds a certain patriarchal standard in many photos and media commentary around female climbers. There remains an emphasis on femininity and cleanliness, just as in mainstream media, but not to the same extreme;

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female climbers are not depicted wearing makeup or elaborate hair styling (Allee, 2011; Vodden-McKay & Schell, 2010).

Emphasis on female climbers' appearance is also distinguished by media commentary through descriptors. Evaluation of the commentary in *Climbing* magazine, published between 1991 and 2004 by Vodden-McKay and Schell (2010), identified many statements regarding the appearance of female climbers. Statements that refer to women's body dimensions and commenting on women's small figures; "[she was] five feet, no inches, and 103 pounds soaking wet" (p. 147), "strong but petite" (p. 147); how cute they are "she is what guys call, cute", their hair colour, skin tones, and looks " radiantly blond" (p.146), "clean white teeth" (p. 147), "silky olive skin" (p. 147), and "country-girl looks were charming" (p.147) (Vodden-McKay & Schell, 2010). Statements that focus on physical appearance are an example of narratives used for women in climbing. This narrative is limited in that it provides readers with a view of these women as feminine in contrast to the sport they participate in, which sometimes requires them to demonstrate the strength associated with masculinity (Vodden-McKay & Schell, 2010). By doing this, media platforms maintain hegemonic masculine societal standards. Allee (2011) encounters a story about a woman who failed to live up to the femininity standards of climbing culture, after a battle with cancer.

> I guess being a dirt bag climber, wearing the same clothes for weeks, reeking of sweat, and having greasy hair was OK, but somehow it wasn't OK to be a bald female climber. I heard whispers of "Is that a guy or a girl?" and "Dude, that's definitely a guy" or "Check out Butch, I bet she's a dyke". Then there was the photographer who said loudly, when someone suggested he take my picture on a certain problem, "Bald chicks aren't sexy and don't sell" (Allee, 2011, p. 78)

Through this story, published in 2008, we can see that there is an expectation of femininity in the climbing community and that this woman who defied the expectation that women have long hair was criticized and seen by some as inadequate and fragmented. Allee's participant is not the only woman to feel this type of rejection. Women and girls who do not present in the typical patriarchal standard of femininity are criticized in other sports settings and society (McClearen, 2018). Rejection is often based on race and social class (Marshall, 2016). Not every female, climber or not, has the privilege of being born white and wealthy enough to maintain such unrealistic hegemonic standards (Marshall, 2016; McClearen, 2018). Adherence to hegemonic ideas of gender leads to a failure to recognize diversity in society, sports, climbing, and across all genders and forms of gender expression. Media is such a powerful force that some might argue depicts a community's values and standards (Allee, 2011; Roberts & Drogin, 1993; Vodden-McKay & Schell, 2010). Through the only two published media reviews on climbing, we can see that the climbing community maintains and upholds society's hegemonic views of femininity.

**Conclusion**

Women face many challenges in the quest for equality in sports and climbing. However, climbing is a place of empowerment for women. Women dedicated to this sport find multiple ways of navigating the social dynamics, media, and physical limitations and gain the psychological strength needed to achieve. Negotiation can leave women in a positive, fulfilling space, increasing self-esteem and feelings of self-worth (Appleby & Fisher, 2005; Boniface, 2006; Chisholm, 2008; Dilley, 2007; Evans & Anderson, 2018; O'Shea, 2008). Female climbers are known to climb as a way to resist the patriarchal

systems of society and utilize body experiences in the sport to develop a sense of autonomy and identity (Chisholm, 2008; Dilley, 2007; Evans & Anderson, 2018; Kiewa, 2001a).

Studies investigating women's experience in climbing show that it is essential for women to have female role models, friends, and climbing partners; this helps women build their identities as female climbers and contributes to body positivity (Allee, 2011; Chisholm, 2008; Dilley, 2007; Evans & Anderson, 2018; Holland-Smith, 2016; Kiewa, 2001a, 2001b). Over the last twenty years, women's only climbing spaces, conferences, and courses are continuing to grow. Events for women are not intended to exclude men. Rather they are places for women to experience validation, community, and empowerment and a place to challenge themselves in a safe and non-discriminating space (Plate, 2007). Events also give women a chance to climb with other women and are important in a community where it is more common for women to climb with men. Research shows that many women are finding ways to reconstruct the ideology of female bodies, feminine movement, and gender identity (Appleby & Fisher, 2005; Chisholm, 2008; Dilley, 2007; Plate, 2007; Reeves et al., 2017).

Other women find it challenging to build an identity as a climber and become accepted into the climbing community (Doran et al., 2018; Evans & Anderson, 2018; Frohlick, 2006; Gems, 2017; Kiewa, 2001b), and according to most research gaining access to the climbing is mainly done through male climbers; leaving many women to feel the need to maintain hegemonic norms to gain access into the sport of climbing (Allee, 2011; Appleby & Fisher, 2005; Kiewa, 2001a, 2001b). Research in climbing is minimal, some studies are outdated, and research appears contradictory. This may be due to, historically, rock climbing being a fringe sport, where marginalized individuals who did not conform to mainstream society chose to live and play (Allee, 2011; Phillips, 2017; Robinson, 2010).

Over the last twenty years, rock climbing has seen a surge in popularity and increased participation by women, men, and gender non-conforming individuals (Abramson & Fletcher, 2007; Burgaman, 2019; Gangnon et al., 2017). With climbing's increased popularity in mainstream society and its inclusion in the Olympics, we are seeing an increase in climbing research. However, this research is more focused on climbing physicality, climbing psychology and cognition, climbing tourism, injury prevention, climbing performance, and the environmental impacts of climbing (Borden & Mahamane, 2020; Buzzacott, Schöffl, Chimiak, & Schöffl, 2019; Caber & Albayrak, 2016; Cole, Uhl, & Rosenbaum, 2020; Ferrero Camoletto & Marcelli, 2020; Langseth & Salvesen, 2018; MacKenzie et al., 2020; Michailov et al., 2018; Schöffl, Lutter, Woollings, & Schöffl, 2018; Whitaker, Pointon, Tarampi, & Rand, 2019). Current research is needed to specifically explore and examine women's experiences of gender relations in climbing, as gaps in the literature over the last ten years are present. Current research will help us to gain insight into gender relations in the current climbing community. Exploration of the present climbing community and its approach to gender relations is needed. Current research in gender relations and climbing would allow us to capture the present-day experience of women who chose to climb recreationally and professionally.

# CHAPTER TWO: THEORETICAL FRAMEWORK AND ETHICAL

## CONSIDERATIONS

## Theoretical Framework

### Feminist Theory

Feminist theory informs multiple research methods to explore what has been left out of the predominant literature (Creswell & Poth, 2018). Feminist theory places the focus of the research on the exploration of women's experience, issues with identity, sex roles, and struggles with social devaluation and powerlessness (Allen, 2018; Gross, 2013; Hooks, 2000a, 2000b; Turner & Maschi, 2015). To ensure the women in this study were provided with a safe and unbiased platform to explore their experience, the researcher disclosed her position on the research topic by positioning herself as a cisgendered[1] woman who participated in rock climbing but did not identify as a rock climber. Discussion around the researcher's academic background and climbing level took place. Participants were encouraged not to see the researcher as an expert but rather as a curious participant - someone who was curious about their experiences and learning through the research process just as they were (Creswell & Poth, 2018).

A feminist approach ensured that the exploration of community and structural contexts were understood while maintaining the integrity of individual participants experiences (Creswell & Poth, 2018). Through social institutions, personal identity is established and challenged, and it is through social context that multiple realities and experiences exist. Feminist methodology allowed for the emergence of women's experiences to be explored, through social situations and institutions, in natural settings (Creswell & Poth, 2018).

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[1] The author was born female and identifies as a female.

Feminist theory was a platform through which these female climbers could challenge and explore current gender relation standards within the rock climbing community. It is through climbing social interactions that women's experiences of gender and sport intersect (Messner, 1988). Sport, as an institution, was created to counter threats placed on masculinity during industrialization (E. D. Anderson, 2009; Kidd, 2013; Kimmel, 2018). Because men were losing their status as breadwinners through social feminist movements, masculinity became more about physical toughness than patriarchal legacy through land ownership and providing for families (Kimmel, 2017). As feminist movements progressed, women began challenging ideas of femininity through participation in sports, and to this day, female athletes continue to challenge the hegemonic, masculinized ideology (Esmundo, 2021; Messner, 1988). Challenges against hegemonic masculinity in sports have created an even greater pushback of masculine ideology, creating a social institution dominated by men and for men (Martindale, 2021; Messner, 1988).

Feminist theory posits that by giving individuals a voice, they can gain the power to participate in social conversation and facilitate social change within their communities (Maguire, 1987). Using feminist theory to inform the use of photovoice methods, participants were given a voice to socially represent individual experiences by placing them in a public forum through ideas, images, discussions, and words (Wang & Redwood-Jones, 2001). Photovoice equipped these participants with the tools, skills, and resources needed to recognize and capture their own experiences and reality, assisting them in making social change within their communities (Wang & Redwood-Jones, 2001). Photovoice was selected as a data collection method for its unique way of facilitating participants' recognition and understanding of their experiences. These study participants were given

cameras to capture their individual experiences to co-construct knowledge and understanding of their unique perspective as women engaged in climbing (Simmonds et al., 2015; Wang & Burris, 1997).

## Ethical Considerations

Ethical approval was obtained through the University of Lethbridge Human Subjects Research Committee and adhered to all Tri-Council Policies for conducting ethical research involving humans (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council, 2018)

Photovoice, as a method, must adhere to the following primary ethical considerations in relation to research activities; respect for autonomy, promotion of social justice, the active promotion of good and avoidance of harm, and protection of subjects from exploitation (Simmonds et al., 2015; Wang & Redwood-Jones, 2001). To ensure the safety of all participants and persons appearing in photos, photovoice ethical considerations were adhered to by utilizing the following four steps (Simmonds et al., 2015; Wang & Redwood-Jones, 2001):

- *Informed consent:* Photovoice informed consent includes: consent between researcher and participants regarding participation in the study, consent between the research participants and any human subjects(s) appearing in photos, and consent given to the researcher by research participants to disseminate the participants' photos, for academic publications and presentations, within academia or through mountain climbing organizations (Simmonds et al., 2015; Wang & Redwood-Jones, 2001).

- *Confidentiality and anonymity:* Consent was obtained for any photographs taken by participants that depict the faces of people or distinct symbols (e.g., a badge that identifies a company or school). If consent could not be obtained, depictions of faces or distinct symbols were blurred out using Adobe Photoshop software. Informed written consent was received from any subjects in photos and/or places where the participants are photographed that required consent.

- *Ownership.* Participants own and have the rights to all their photos taken during the photovoice project. Therefore, all participants retained digital copies of their collected photos.

- *Gatekeepers and gaining access.* Ethical issues regarding access to sites where photos are taken can occur. However, due to the lock down, this was not required in this study.

Consent was obtained through informed consent guidelines. All participants, individuals in photographs, and indoor climbing gym owners were informed about the project and the purpose of photographs before they were invited to sign the consent to participate. Participants, individuals in photographs, and indoor climbing gym owners also had the opportunity to ask questions to the researcher directly, both in person and through email or phone conversations. By signing consent forms, the participants, individuals in photographs, and indoor climbing gym owners acknowledge their understanding of the purpose of this study and the photographs. All participants and individuals photographed understood and were given the right to withdraw from this study at any time without negative consequence. The right to withdraw was explained during the consent process.

**CHAPTER THREE: "I'M A LADY CLIMBER": WOMEN'S EXPERIENCES**

**WITH IDENTITY AND LEGITIMACY IN ROCK CLIMBING**

**Introduction**

Rock climbing is said to be a welcoming sport for women because rock climbing requires skills, technique, and traits attributed to both femineity and masculinity, including flexibility, balance, strength, and endurance. But, despite women's increased participation in climbing (Allee, 2011; Phillips, 2017) and a remarkably narrow performance gap between male and female climbers in comparison to other sports (Carroll, 2021; Manovski et al., 2018), women still report feeling marginalized in climbing communities (Allee, 2011; Doran & Hall, 2020; Wigglesworth, 2021). Unlike their male counterparts, women's experiences, values, philosophies, standards, and the way they develop their climber identity is not always reflected or accepted by other climbers in the climbing community, especially male climbers, nor does it always fit with the collective identity and culture of rock climbing.

**Background**

Like mainstream sports, the cultural values and philosophies of climbing are historically dominated by traits, characteristics, and ideals associated with idealized masculinity (Krane, 2001; Krane et al., 2004; Mitten, 2018a; Warren et al., 2019). Traits, values, and philosophies associated with idealized femininity, like nurturing, supportiveness, cooperation, and emotionality, are undervalued (Kiewa, 2001a; Plate, 2007; Wigglesworth, 2021). Although many climbers who identify as women feel empowered when they accept and embrace their strength, assertiveness, self-determination, and competitiveness (Appleby & Fisher, 2005; Kiewa, 2001a, 2001b; Plate, 2007), some

women find the culture in rock climbing feels limiting and exclusive of socially constructed feminine ways of knowing, experiencing, and navigating the world (Allee, 2011; Appleby & Fisher, 2005; Kiewa, 2001a, 2001b; Plate, 2007). Leaving some women feeling like outsiders in their communities (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2012; Wigglesworth, 2021).

*Gender and sports*

Feminist sports scholars argue that hegemony, power and control, and the marginalization of women is a socially structured gatekeeper that denies women access and acceptance into many sporting spaces (LaVoi, 2017; LaVoi & Baeth, 2018; LaVoi et al., 2019; Whiteside, 2015). Men created sports to celebrate idealized masculinity (Kidd, 2013). Sports value physical fitness (muscular), aggression, competition, and heterosexuality creating a hegemonic standard where men hold power and control in the sporting world (Chen & Curtner-Smith, 2015; Krane, 2001; Krane et al., 2004; Paloian, 2012). By favouring the masculine, sports culture simultaneously rejects and marginalizes the feminine (Krane, 2001; Krane et al., 2004). Women are marginalized through practices like lesbian baiting, objectification and sexualization, and diminishing women's success. Women are discouraged from participating in masculine sports for fear of being seen and called out as butch or lesbian (Gray & Mitten, 2018; Gregg & Taylor, 2019; LaVoi et al., 2019). Some high-profile women have even lost sponsorship and or endorsements for coming out as gay or acting too masculine (Gray & Mitten, 2018; Gregg & Taylor, 2019). When women take on or exemplify masculine traits successfully, their achievements are often critically explained away, often by just labelling them as "one of the guys",

"superwoman" or portraying them as extraordinary for their gender (Newbery, 2003, p. 211; Warren, 1985; Wigglesworth, 2021).

Despite the increase in women's participation in sports over the last decade (from 4% to 40%) (Acosta & Carpenter, 2014), women are still underrepresented in sports leadership, management, and coaching roles (LaVoi, 2017; Whiteside, 2015). Only 23% of collegiate athletes and 42% of all female athletes will be coached by a female in their lifetime (LaVoi, 2017; LaVoi & Baeth, 2018). As LaVoi et al. (2019, p. 38) point out, "head coaches are the most visible, powerful positions in sports," and women's underrepresentation in coaching roles means most leaders in sports, even women's sports, are men.

Women are also underrepresented in sports media; about 2% of all sports coverage and 4% of social media coverage consists of female sports or feminine sports topics (Bishop, 2003; Cooky, Messner, & Hextrum, 2013; Weber & Carini, 2013). When women are covered in sports media, coverage often minimizes their athletic competence, highlights their femininity, tokenizes, sexualizes, marginalizes, and portrays women as other or unique to the sporting world (Choi, Chepyator-Thomson, & Leopkey, 2020; Cooky et al., 2013; Jones, Murrell, & Jackson, 1999; LaVoi et al., 2019). Out of the ten most profitable and most televised sports in the world, zero have women players or coaches (Wrixon, 2021). It is said that the media shows who is valued in society, and with a lack of coverage in all forms of media of women's sports, there is a clear message that the value of women in sports is low compared to male counterparts.

*Outdoor experiential education and alternative sports*

Outdoor Experiential Education (OEE) includes all outdoor recreational activities, education, and learning (Gray & Mitten, 2018; Wigglesworth, 2021), including air and land activities performed in remote outdoor locations, like mountaineering, rock climbing, hiking, mountain biking, skiing, base-jumping, etc. In OEE, the philosophies, standards of practice, values, rules and regulations, and ideas of what it means to be an outdoors person are centred around traits and characteristics associated with idealized masculinity and colonialism (Mitten, 2018a; Warren et al., 2019; Wigglesworth, 2021; Wynn, 2018). For example, being strong, tough, conquering, self-determined, competitive, risky, and assertive are highly valued, encouraged and celebrated in rock climbing (Krane et al., 2004; Mitten, 2018a; Plate, 2007; Wigglesworth, 2021).

Historically, climbing has been studied under alternative sporting terms, including fringe, extreme, or lifestyle sports. Alternative sports are marginalized or removed from mainstream organized sports (Palmer, 2004), are inherently dangerous and risky (Rinehart & Sydnor, 2012), and are often more of a lifestyle than a recreational pass time (Wheaton, 2010, 2013). Rock climbing has historically been a sport dominated by white heterosexual males due to its roots in OEE and alternative sports (Dubreuil Karpa, 2018; Gray & Mitten, 2018), and because male leaders maintain the culture, the perpetuation of gender stereotypes based on idealized masculinity and femininity are preserved. Meaning there are underlying assumptions in rock climbing that women are not strong enough or skilled enough to make it in the outdoors (E. D. Anderson, 2009; K. L. Anderson, 2001; Dubreuil Karpa, 2018; Jordan, 2018; Wigglesworth, 2018, p. 17; Wynn, 2018, p. 195). This makes

it hard for women to participate in rock climbing in meaningful ways without the assistance of male coaches, mentors, and supporters.

Outdoor Experiential Education (OEE) and alternative sports scholars have shown that women experience gender, gender roles, powerlessness, and other gender and sex-related issues while engaging in outdoor activities and communities (Allee, 2011; E. D. Anderson, 2009; K. L. Anderson, 2001; Appleby & Fisher, 2005; Dilley & Scraton, 2010; Doran et al., 2018; Dubreuil Karpa, 2018; Kiewa, 2001b; Mitten, 2018a; Roberts & Drogin, 1993; Vodden-McKay & Schell, 2010; Wigglesworth, 2018, 2021). As young girls, females have historically been left out of early outdoor education opportunities and may even be discouraged from participation due to inherent risks (Culp, 1998; Gray & Mitten, 2018; Holland-Smith, 2016; McNiel et al., 2012; Warren, 2016). Being left out and discouraged from participating means women and girls often lack or feel they lack the technical skills needed to participate in outdoor recreation (Denny, 2011; Warren & Loeffler, 2006).

Studies show that female outdoor leaders are seen and portrayed as physically weaker and more challenging to work with than male outdoor leaders by collogues and clients (Davies, Potter, & Gray, 2019). Sexual harassment, homophobia, and misogyny are found to be normalized in alternative sports and OEE industries (K. L. Anderson, 2001; Davies et al., 2019; Erickson, 2003). In many alternative sports, women struggle to gain access and acceptance due to stereotypes, sexualization, and devaluation (Appleby & Fisher, 2005; Jordan, 2018; Wigglesworth, 2021; A. Young, 2004; A. Young & Dallaire, 2008; K. Young, 1997). For example, K. L. Anderson (2001) found that some male snowboarders believe female boarders are weaker and less skilled than male boarders. Male participants in K. Young (1997) acted as if female climbers were not equal to or as capable

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as male climbing partners, and Wigglesworth (2021) found that women feel excluded and frustrated by the sexualization and objectification of women's bodies in the practice of naming climbing routes and climbing crags. It is also commonly reported by women that female success in rock climbing is often criticized and devalued - if a woman succeeds in climbing, it is often attributed to her small stature, tiny fingers and feminine features that make the climb easier for her (Allee, 2011; Chisholm, 2008; Hill, 2002; Plate, 2007). Women have even been accused of cheating (Allee, 2011; Chisholm, 2008; Hill, 2002; Plate, 2007). A lack of acceptance in OEE spaces hinders women's ability to freely explore the outdoors in a way that is meaningful to them and under their terms (Gray, Allen-Craig, Mitten, Loeffler, & Carpenter, 2016; Legge, 2018).

*Identity*

Adherence to a community or group's collective identity allows individuals to feel like legitimate members (Coakley & Donnelly, 2005; Erickson, 2005; Rickly-Boyd, 2012). However, to be a full participant in any community, individuals need validation and acceptance from veteran members (Coakley & Donnelly, 2005; Haslam, Jetten, Postmes, & Haslam, 2009). Identity construction can be problematic for women in male-dominated cultures where they end up in paradoxical positions - feeling the need to adhere to cultural standards like working hard, gaining strength, and being aggressive and competitive, along with pressures to maintain feminine standards of resisting being too muscular, assertive, and pushy (Appleby & Fisher, 2005; Krane et al., 2004; Paloian, 2012).

Research shows that female novice climbers adhere to the collective identity that defines climbing's cultural legitimacy, which includes adherence to idealized femininity (Appleby & Fisher, 2005; Dilley, 2007; Kiewa, 2001a). For example, women will perform

overdetermined femininity (Feder, 1994) by maintaining beauty standards like wearing make-up, wearing form-fitting clothing, and avoiding becoming too muscular (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2007; Feder, 1994; Ho, 2017; Mazumdar, 2020). But, as some female climbers become more established, committed, and focused on climbing, they begin to question and eventually resist some heteronormative values present in the culture of climbing; especially those that do not align with their personal experiences, understanding, values, and goals (Appleby & Fisher, 2005; Dilley, 2007; Kiewa, 2001a).

Drawing on the assumptions that: a) climbing is dominated by and values idealized masculinity and femininity, b) legitimacy and belonging require acceptance and validation from community members, and c) that, like other female athletes, women who climb experience the paradoxical dilemma of maintaining and adhering to heteronormative ideas of both idealized femininity and masculinity, this paper is a report on research findings that suggest that gender expectations and cultural, social interactions influence women's experiences in rock climbing.

## Methods

### *Study design*

Applying feminist theories, this study was conducted utilizing Photovoice methods, informed by Participatory Action Research (PAR) methodology. Photovoice was first established, in 1995, as a unique form of participatory action research (PAR) by Wang, who created the method to capture the lives of village women living in Yunnan Province, China (Wang, Yuan, & Feng, 1996). It is based on the underlying assumption that "people are experts on their own lives"; (Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004, p. 911) that engaging participants in the collection of photos allow them to choose

how they illustrate their personal experiences, perspectives, emotions, and desires (Glesne, 2016; Wang, 1999a).

Photovoice allowed participants to take an active role throughout the research process, with the participant's goals for social change being the primary focus (MacDonald, 2012). PAR allowed for the acknowledgment of multiple social realities and focused on the construction of multiple realities among individuals through shared experiences, minimizing control and manipulation by the researcher (Creswell & Poth, 2018; MacDonald, 2012). Photovoice methods aligned with the researcher's feminist framework, allowing participants to view and question their experiences with rock climbing and climbing culture through the social construction of gender. Participants were able to act within their social world to socially construct their experiences, recognizing that gender is socially constructed, fluid, and performative (Butler, 2011; Creswell & Poth, 2018). Using photovoice allowed participants to capture their rock climbing experiences, using the images to describe how their social positions impact power relationships in rock climbing. Therefore, this thesis aimed to focus on the experiences of the participants, in the context of gender relations in rock climbing, to co-construct new knowledge contracted through women's diverse experiences and the institutional structures that inform these experiences. For this study, participants engaged in photovoice by choosing or taking photos representing their experiences and perspectives as women who rock climb. Participants were then allowed to examine shared and individual experiences related to gender relations in rock climbing through semi-structured interviews.

Utilizing the primary goal of photovoice, the production of knowledge, participants were enabled to: 1) Record and reflect on their personal and climbing community strengths, 2) Promote critical dialogue and co-construction of knowledge about personal climbing and

climbing community issues, and 3) Facilitate dialogue amongst climbers through an accessible presentation of images that illustrate the personal lives of women who climb and their experiences in the climbing community. Participatory action research through the use of photovoice allowed the participants to explore and understand their experiences so that they could be the catalyst for social change (Wang, 1999). Photovoice was chosen as a method because it is beneficial when working with sensitive topics, including gender-based research (Simmonds et al., 2015). Some selected photos by participants were taken from years past that represented ongoing struggles, experiences and realities for women who rock climb even today. The Principal Investigator (PI) obtained ethics approval through the Office of Research Ethics at the University of Lethbridge.

*Participants*

Due to the COVID-19 lockdown measures, participants were recruited via recruitment emails distributed to all Association of Canadian Mountain Guides (ACMG) members through the organization's Executive Director. Purposive convenience sampling was used to ensure all participants identified as women and had been climbing long enough that they also identified as climbers (Robinson, 2014). Potential participants contacted the PI directly by phone, text, or email. An initial information session was conducted to ensure that participants understood their role in the study and that all inclusion criteria were met. All willing participants who met the inclusion criteria were permitted into the study. Six individuals volunteered to participate: one left before any data was collected for personal reasons, leaving five participants in total. Three women were between the ages of 18-30, one was 31-40, and one was 38-50 (see Appendix C). All women were cisgender and Caucasian. Marital status and parenting situation were included as questions because

previous research indicates that romantic relationships and caring for children can limit women's ability to engage in rock climbing (Clayton & Coates, 2015; Frohlick, 2006; Gilchrist, 2007; Summers, 2007). Two participants claimed common-law status, and three were single. No participants had children.

These participants composed a diverse group of climbers, representing a range of climbing modalities, climbing skills, and years of climbing experience (see Appendix D). Climbing modalities depicted in photographs and discussed in interviews included sport, ice, mixed (dry-tooling), alpine, and mountaineering. All participants engaged in both outdoor and indoor climbing. All participants climbed Indoor 5.11a or greater and 5.10a outdoors, using the Yosemite Decimal System (YDS); one participant boulderer at a V 2-3 level, using the UIAA system[2] (see Appendix D). These systems describe the difficulty of the climbing, with higher numbers indicating a more challenging climb. All participants participated in climbing at the level of serious leisure as defined by Dilley and Scraton (2010). However, Rose, Kate, and Tasha also identify as climbing professionals. Rose is an indoor instructor working on her outdoor rock guiding certificate, Kate is an outdoor rock climbing guide, and Tasha is a route setter at an indoor gym. Their years of climbing experience ranged from five to fifteen years.

To maintain confidentiality and anonymity, participants could choose their own pseudonyms or have a random pseudonym selected for them. No real names were used in the write-up of this paper. One participant chose her own pseudonym; all other participants asked the PI to select for them.

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[2] Yosemite Decimal System (YDS) and UIAA system are used to classify the difficulty of a rock climb. This helps climbers estimate the level they climb at. YDS is used in sport and trad climbing, while UIAA is used in bouldering. For further details see, Draper et al, 2011.

*Data collection*

Individuals interested in participating were given information on the study in a one-on-one information session with the PI, over Zoom. At this time, informed consent was explained and obtained. Participants were advised that if they wanted to maintain anonymity, they should take or choose photos that did not depict their faces or any friends and family that might expose their identity. They were advised of the risks and benefits of participation in photovoice research and their right to withdraw from the study at any time, up until findings are published. All participants were required to sign a photo dissemination consent to participate and obtain informed consent from any individuals appearing in their photographs. Participants were given two to three weeks to take and collect photos related to their experiences as female rock climbers. They were instructed to do so using personal cameras or smartphones while considering the following questions: 1) What are your experiences climbing as a woman? and 2) When you are engaged in climbing or with the climbing community, how do you experience the culture?

After the photo collection period, participants were instructed to choose five to seven photos to share with the PI. Participants shared, discussed, and named each of their chosen photos in semi-structured interview sessions. The semi-structured interview guide (Appendix E) allowed the PI to stay focused and gave the PI room to explore follow-up questions and pertinent ideas that arose during the interview process. Interviews took place online through Zoom teleconferencing software (Banyai, 1995). Video and audio were recorded during each one-on-one interview. Consent to obtain video and audio recordings was obtained through verbal consent at the beginning of each interview. Interviews ranged from 60 to 120 minutes in length.

*Data analysis*

The PI transcribed audio recordings as the first phase of thematic analysis. Data was analyzed inductively using thematic analysis, as described by (Braun & Clarke, 2004, 2006). Data coding of transcribed interviews and photographs was managed using MAXQDA qualitative software (VERBI Software, 2019). Thematic codes, categories, and eventually themes that emerged were created by the PI, following the six thematic phases described by (Braun & Clarke, 2006):

1. Became familiar with the data: Transcribing, reading and re-reading the data until it was familiar and writing down initial impressions or reoccurring themes.

2. Generated initial codes: Reading through the data and highlight words and/or phrases that appear repeatedly, and/or are significant.

3. Searched for themes: Made a list of all potential themes and gathered all data relevant to those themes.

4. Reviewed themes: Checked each theme to see if it was congruent. Using MAXQDA qualitative software to generate a thematic map.

5. Defined and named themes: Continued to analyze and refine specific themes, began to name themes, build the participants' stories, and generate clear definitions and themes.

6. Developed the reported: Selected compelling examples and completed the final analysis of selected themes, words, and statements from the data. Checked to see if themes related back to the research questions and literature.

During the analysis process, the PI sent out emails to participants when verification or clarification was needed. Research participants were allowed to verify the coded themes

and researcher interpretations. Themes were presented to all participants via email through a slide show, and participants were encouraged to respond with any questions, concerns, or verification via email. Three of the five participants were contacted directly for clarifications regarding statements they made in the interview as follow-up. Three out of five participants responded to ongoing emails for validation and clarification. This process ensured congruence of the analysis between participants and the PI and adherence to PAR methodology (Jurkowski, 2008).

## Results

The main themes and sub-themes that emerged from participant interviews and photos are illustrated in Table 4.

**Table 4**

 Main Themes and Sub-themes

| Sense of Belonging | Equity, Diversity, and Inclusion | Othering |
|---|---|---|
| *Access,*<br><br>*Proving Yourself: Validation,*<br><br>*and*<br><br>*Gatekeeping* | *Inclusivity,*<br><br>*and*<br><br>*Hierarchies,* | *Stereotypes,*<br><br>*and*<br><br>*Microaggressions* |

## Sense of Belonging

Belonging is about gaining acceptance as a legitimate member of a group (Jonsson & Beach, 2012; Mejias, Gill, & Shpigelman, 2014; Rose & Shevlin, 2017). Previous climbing research shows that gaining a sense of belonging and legitimacy in the climbing community is important to rock climbers (Appleby & Fisher, 2005; Langseth & Salvesen,

2018). Climbers do this by proving to other experienced climbers in communities their commitment and conformity to the sport and culture (Langseth & Salvesen, 2018). A sense of belonging was portrayed by all participants as an ongoing process in the context of *access, gatekeeping, and validation.* For these women, a sense of belonging extended beyond the sport of rock climbing and was fundamental to engaging in rock climbing culture.

*Access*

Participants illustrated access as the ability to obtain and maintain the skills and supports needed to gain access, learn, and advance in the sport of rock climbing (Nelson, 2017; Ribot & Peluso, 2003; Sandhu & Samarati, 1994). Participants in this study all identified as upper-middle-class Caucasian women and did not illustrate any difficulties accessing climbing equipment or climbing partners, male or female. Participants overwhelmingly demonstrated the importance of connection to climbing partners, mentors, and the climbing community throughout their interviews.

All participants learned to climb through male instructors. Rose was the only participant to access a female co-instructor, teaching alongside a male instructor. For three participants, access was obtained through close personal relationships with men. As illustrated by Beth (Figure 1).

**Beth**: "That is my first climb, 2016. That is my partner. I was taught how to climb by my partner and his brother".

*Figure 1. "My first climb"*

Tasha also accessed climbing through a male partner with whom she was in a romantic relationship, but Kate learned through a male friend.

> **Kate**: "He was a friend, who was already a climber, who was in university with me; a guy, but not a guy I was dating, just a friend".

In short, these female participants experiences show that women still predominantly access initial learning opportunities in rock climbing through male gatekeepers they are in close personal relationships with (Appleby & Fisher, 2005).

Interestingly, four out of five participants expressed that the initial desire to learn to climb was independent of their male instructors. As shown in Peggy's statement**,** "The desire was just solely mine; I wanted to do more stuff outdoors". Similarly, Kate also pointed out that she initiated learning to climb. Tasha discussed her boyfriend's influence on her learning but stated her desire came from "wanting to do harder objectives in the mountains." This suggests that although participants accessed learning experiences through male gatekeepers, it was necessary to them that the desire to learn was independent of their relationships to their male teachers, instructors, and coaches.

Access to climbing partners was also crucial to these participants, especially female partners. Kate explained that when she started climbing, mostly all her climbing partners

were male, but now they are "more, half and half". Rose and Beth highlight their experiences with female partnerships and women's spaces.

> **Rose**: "There are a lot of great female spaces" in gym climbing, trad climbing, and competitive climbing".

> **Beth**: "This is my laptop; I utilize this tool to be able to go onto the internet and find climbing groups on Facebook and meet up with people. I've gotten lucky. I've found a lot of great climbing groups. [One] solid group had four ladies and three dudes. The ratio of more women than men was unusual".



*Figure 2. "I am Peace in Action"*

Participants commonly and consistently stated that connection to female mentorship is more difficult, and all, but one participant (Beth), consistently discussed the importance of female mentorship. Mentorship was always discussed in the context of female mentors, and three participants illustrated the benefits of female mentorship, as seen in Kate's comment.



> **Kate:** "That's [Meg], it's kind of an interesting mentorship role. In a way she's been able to validate the overarching environmental challenges I've had in pursuing guiding. She is a mountain guide, so I definitely see the opportunity of like, you know, if you keep on trying, you'll get there".

*Figure 3. "Inspiration"*

Tasha highlights the rarity of her experience with a female mentor.

**Tasha:** "My mentor was my ex-boyfriend's mom. She was a similar size to me, and she just kicked me up these mountains. She was so in-shape and after I was introduced to climbing, we started to climb together.

She took me dry tooling for my very first-time. Dry-tooling and mixed climbing, it's kind of opened door[s] for me.

She's the strongest female influence I've had in my life regarding outdoor activities, climbing. She was great. They're out there, honestly, she's in her fifties, and women like her are kind of hard to come by but".

On the other hand, Peggy illustrates her lack of access to female mentors.

**Peggy:** "I can say that there's great female alpinists in Canada, but I don't know any personally that I could talk to or have as a mentor".

In summary, participants predominantly accessed the sport of climbing through male instructors, teachers, and coaches. Some participants felt it was important that they distinguish learning to climb due to their desire to rock climb and pursue outdoor adventures, independent of access through male instructors. As women became more immersed in rock climbing and the climbing community, they had better access to climbing partners, especially female partners. But each participant expressed the difficulty in finding female mentorship and the lack of female mentorship in the sport.

### *Proving yourself: Validation*

All participants relayed common and consistent discourse around the need to prove themselves to gain and maintain membership and legitimacy in climbing communities. For these participants proving oneself is based on adherence to cultural standards such as intense commitment to the sport, climbing at a high-grade level, and adherence to being tough, strong, and taking risks. Rose illustrates some of this in her comment below:

**Rose:** "One of the challenges is feeling this pressure to perform, to belong in a community. You must always be getting out there at a certain level to prove yourself. I think a lot of people are under a lot of anxiety living in

these climbing communities, trying to constantly be accepted or be good enough to be in the community".

Validating experiences gave these women a sense of belonging and legitimate membership in their climbing communities. Validation occurs through trusting and supportive relationships and receiving praise in the form of verbal compliments (Jonsson & Beach, 2012). Kate discussed several climbing partnerships that helped her feel a sense of belonging.

> **Kate: "**I chose photos where [I'm reminded] of positive relationships with climbing. To me [this relationship] is a positive supportive guiding relationship. This is [Molly] she has a high level of trust in me. I guess I take a mentorship role and a more confident role in this relationship".



*Figure 4. "Friendships"*

Kate discusses how this relationship and others "create an environment" that gives her the confidence she needs to see herself as a "climbing guide" and belonging in the guiding community.

Beth illustrates how praise from another climber leads to feelings of legitimacy.

> **Beth**: "[After this climb] I remember someone saying to me "really nice lead, that was a good send". I felt connected and being praised for my hard work made me feel like I was part of the community, that I was legitimate".



*Figure 5. "Because it Makes Sense"*

Similarly, Tasha talks about how this photo reminds her of "comradery" and a day she gained praise from a well-known climber in her community.

> **Tasha**: "One day, when I was out an [anonymous professional climber] came over and talked to me, he made me feel more comfortable. He encouraged me to get on a hard climb, and he took a photo of me climbing and put it on his social media and tagged me".



*Figure 6. "Happiness, Happiness"*

Tasha talks about how this experience helped her build confidence, recognition, and legitimacy in the community.

These stories and images illustrate just some of the ways being praised, trusted, and supported by others in the climbing community can be a validating experience for climbers. Validation facilitates a sense of belonging and legitimacy for these women, especially when that validation comes from climbing veterans. Praise, trust, and support also give these women confidence in their abilities as rock climbers.

### *Gatekeeping*

Gatekeepers govern the entry and maintenance of group standards within a group by controlling initial access, learning opportunities, advancement, and cultural standards. Meaning gatekeepers make decisions, consciously and unconsciously, about who can join, obtain skills, advance, and maintain membership in a group by guarding access to information needed to be a part of the group (Lugg, 2018; Mitten, 2018a, 2018b; Rao & Roberts, 2018). As illustrated by the participants above, access into rock climbing is still predominantly governed by male gatekeepers (Appleby & Fisher, 2005). Participants in

this study discussed and presented photos that represented their experiences with the current state of gatekeeping in rock climbing communities as they accessed advancement in the sport and culture of rock climbing.

Advancement is a fundamental component of pursuing climbing at the level of serious leisure[3]. Seeking out new climbing modalities, advancing climbing grades, and developing the strength, technical skills, and safety skills needed to seek out more challenging and more advanced climbing goals is an extensive part of climbing culture (Langseth & Salvesen, 2018). Participants illustrated how they successfully and unsuccessfully gained access to learning opportunities to help them advance in the sport of rock climbing and the gender imbalances they encountered. Peggy illustrates this in her photo below.

**Peggy**: "This was a course, intro to mountaineering. It was a bunch of dudes. I had one male guide, and one female guide, and then myself and [Tammy]. So, there were two females and nine guys, then one female and one male guide".



*Figure 7. Mountaineering Course*

Rose shares her friend and mentors experience with gatekeeping in her community.

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[3] Serious leisure is the pursuit of a sport or activity that is fulfilling, goal-oriented, time-consuming, and entails a long-term commitment. Patrons are very dedicated to the activity.

**Rose: "**This [photo] reminds me of this incident that happened, [A prominent female climber in the community] spoke up about [an incident], said it was not dealt with properly and others in the community, some guides, all males pretty much, went against this woman hard, all online. They chased her out of the community. It is sad to see how powerful some of these community members can be".

*Figure 8. "All that Glitters is Gold"*

Three participants sought out advancement in rock climbing through professional climbing careers. Kate is working on her climbing guide and mountain guide certification. Rose is a certified indoor climbing instructor who wants to access a career in route setting and outdoor guiding. Tasha was formerly an indoor route setter. All three of these women illustrated gatekeeping experiences.

> **Kate:** "I've asked a lot of people for mentorship in the guiding community and [asked them] how different people have gotten there. It kind of seem[s] to be through personal connections. Quite a few females dated mountain guides while they were becoming guides, that is how they then were able to gain a lot of those skills without professional training. And then a lot of guys were close friends, in a bro way. It's kind of like, you either buy into the bro culture or date someone who's in that role".

Rose directly discusses two different experiences with gatekeeping.

**Rose:** "I had contacted [this guy] and asked if I could shadow him and get some experience. At first [it was] a good experience. And then it turned into this weird, gatekeeper situation where I didn't end up learning anything. I was just sitting around, and it turned into him hitting on me and not teaching me anything. I think it was a good example of how there are these gatekeepers for certain things; this is just a public area he wasn't really associated with any organized climbing group or anything he just took it on himself to be in charge of this area".



*Figure 9. "The Gatekeeper"*

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**Rose:** "I did some route setting in the gym, they had a big problem, there weren't any female route setters. Our managers were trying to encourage women to get into route setting. They even sent a couple of women to a route setting clinic. But it would never stick. It's just a weird culture, like we would set routes and then the other route setters (all male) would go in and change them or take them down. Or we could only set routes for kids, or routes under 5.8. Most of the women who did the route setting clinic didn't end up following through, none of us really continued with it because we weren't really given any positive reinforcement. It's very closed off and tight-knit circles and not very welcoming".

Unlike Rose, Tasha gained access to the profession of route setting when she was asked to set routes by the head route setter at the gym where she worked.

**Tasha:** "I had no idea I was even going to get asked to set because I had no experience. I'm this random chick. It shocked a lot of people".



*Figure 10. "Project"*

Tasha explains that as a woman, she was given a rare opportunity. But this left her feeling that "[she] had to work harder" to prove she was just as strong as her male co-workers. She illustrated how cultural gatekeeping can still be an issue for some women even after gaining access.

These illustrations suggest that women experience barriers when pursuing advancement in rock climbing. Male gatekeepers are still dominant in the sport as teachers, coaches, instructors, guides, setters, and sometimes self-appointed stewards of certain climbing areas. Men also appear to predominantly govern advanced learning and professional opportunities.

Socially accepted gender roles create stereotypes and accepted standards for both men and women and often place men in positions of power, control, and leadership (Adisa, Abdulraheem, & Isiaka, 2019; Hechavarria & Ingram, 2016). Some feminist sports scholars believe that cultural hegemony is a socially structured gatekeeper that places men in positions of power and control in sporting contexts (LaVoi, 2017; LaVoi & Baeth, 2018; LaVoi et al., 2019; Whiteside, 2015). All participants illustrated experiences with hegemonic masculinity in the sport and the culture of rock climbing and illustrated challenges with cultural ideas centred around the maintenance of gender traditions and adherence to masculine superiority. Rose explicitly discusses this.

> **Rose:** "[It's] really traditional, male-dominated, a romanticized air about it. I feel like some other sports are a little bit more inclusive and a little bit less gatekeeper, the newer sports that aren't associated with that bigger culture and history [that's associated with] climbing".

Rose ties tradition in climbing to male dominance. She refers to climbing as the "old boys club," especially outdoor climbing, alpine climbing, and mountaineering. Similarly, Peggy illustrates traditional masculinity in climbing when she states, "I'm used to the guy culture". She explains that "guy culture" means keeping up with the guys and being tough, strong, and stoic. Tasha refers to a co-worker as "old school" and explains that he prefers women who maintain idealized femininity.

> **Tasha:** "He liked girls with long hair, he likes it when I have my helmet on and he can see my ponytail sticking out".

Kate uses the term "old school" throughout her interview when referring to male climbers who, in her opinion, engage in climbing to feed their "egos" and "prove their greatness". She feels they do this by placing a higher value on the danger of climbing instead of focusing on the fun and relational aspects of the sport.

These findings demonstrate how participants strived to belong in rock climbing communities. Their illustrations of validation through shared experiences of being praised, trusted, and supported in recreational climbing communities depict how women can find a sense of belonging and legitimacy within their climbing communities. But participants also illustrated some of the barriers and challenges to advancing in climbing, especially when pursuing advanced and professional climbing opportunities. Access to rock climbing and climbing culture is still predominately governed by male gatekeepers (Allee, 2011; Appleby & Fisher, 2005). Some participants illustrated how access to advanced and professional space was denied through the maintenance of traditions based on hegemonic masculinity. Because of adherence to traditional beliefs and hegemonic gender stereotypes about masculinity and femininity, women continue to face barriers to accessing the sport and culture of rock climbing.

**Equity, Diversity, and Inclusion**

Social exclusion exists when an individual or group of individuals cannot fully participate in a group or culture due to the lack of economic means or misalignment of social, political, or cultural views and values (Todman, 2004; Verkuyten & Killen, 2021). To feel included, individuals need to acquire and maintain a long-term sense of belonging, feel safe, be accepted for who they are, and have equal access to opportunities (Ahmed, 2012; Shore, Cleveland, & Sanchez, 2018; Simplican, Leader, Kosciulek, & Leahy, 2015). For social and cultural inclusion to exist, a group or culture must create safe, equitable, and diverse spaces for all members. Participants illustrated experiences with equity, diversity, and gender within rock climbing through the contexts of *inclusivity and gender stereotypes.*

These themes emerged in recreational, professional, different climbing modalities, and climbing culture discussions.

*Inclusivity*

Even though these women felt a sense of belonging in certain situations and contexts, they also illustrated situations and contexts in which they felt excluded and marginalized. Below, Rose illustrates her overall feelings of inclusivity in rock climbing communities.

> **Rose**: "In general climbing is inclusive. But there [are] two levels. If you are recreationally climbing, it's inclusive. But suppose you want to become involved in changing the culture or the development of climbing, like route setting or getting involved with access to bolting organizations or climbing organizations. In that case, there is a big wall to accessibility. It's very inclusive on the ground, but if you are trying to go anywhere beyond that, there is a very male-dominated culture, and it's hard to get involved".

Tasha highlights her experiences with feeling excluded in recreational rock climbing spaces.

> **Tasha:** "I feel discouraged because I'm a female. I will see groups of men climbing hard, and I get really intimidated. I feel like even if I flash something it will never be good enough. They won't look past me being a girl, and it impacts you".



*Figure 11. "Bloodline"*

Kate expresses her opinion on climbing's inclusivity, or lack thereof, in both recreational and professional spaces.

> **Kate**: "As much as climbing is a sport where females and males are much closer in terms of ability [compared to other sports]. Women are still very much the underdog".

Peggy feels that recreational climbing is "pretty open" to a lot of different types of people with diverse backgrounds. But she contradicts that idea when she states that she sees "mostly white people" and a few "Asian people" at the gym. When further questioned, she explains that climbing is an opening and welcoming environment for many people, but that due to costs and other barriers, it is not accessible to everyone.

Participants comments suggest, despite experiencing feelings of belonging and legitimacy in climbing, these women question the inclusivity of climbing communities, especially professional spaces. For some participants, engagement in recreational climbing feels more inclusive than professional climbing, but other participants also experienced marginalization and exclusion in recreational spaces. As participants highlight, it is not only women who feel marginalized. These participants believe that race, socioeconomic status, and other social factors play into a lack of inclusion in the sport.

### *Gender stereotypes*

Gender stereotypes and the ideals, norms, and standards they create are frustrating and limiting to rock climbers of all genders (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2012; Robinson, 2016; Summers, 2007; Wigglesworth, 2021). Participants illustrated stereotypes related to gender norms in rock climbing as affecting both male and female climbers. In most instances, women were seen as weaker, less skilled, and less capable than their male counterparts: whereas stereotypes often place male climbers in positions needing to appear stronger, more capable, and more skilled.

Rose illustrates how her misconceptions of gender lead her to access a climbing location through a male gatekeeper.

**Rose**: "On this trip I went with [a] climbing partner who was male. I didn't think I had the confidence to go by myself or with [a] friend who is female, because of that overarching feeling - this is a place where professionals go, a place where famous climbers go. Even though there are all grades of climbing, you don't have to be a 5.12 climber to climb there (Yosemite), but there is just this feeling associated with that place that there's only a certain calibre of people go".

*Figure 12. "Yosemite"*

Beth illustrates how gender stereotypes also affect men in climbing.

**Beth:** "He's got a double load on. This doesn't just apply to Ben, this applies to most males that I have climbed with; if I'm carrying a heavier load than my male partner, [they] will offer to help. Actually, Ben has said, "no, no, no, I got the bag, I don't want it to look like a dick making you carry all the climbing stuff". That's a valid thing to think in the society we live in, in my opinion".



*Figure 13. "Stereotypes"*

Rose highlights how gender stereotypes of male climbers can create difficult decisions and

situations for both men and women.

**Rose:** "Finding climbing partners is more complicated for female climbers. There are two sides to it. [Sometimes] I have this assumption that they are going to try and get in my pants, which is not always the case. That's a problem I assume that. A lot of females I talk to [there] is a weariness of finding a male climbing partner, just not really trusting what their intentions are. But it can also feel a bit unsafe; in my experience [men] kind of struggle with admitting if they are uncomfortable doing something or asking questions. Sometimes they will feign overconfidence or get into riskier situations. I think the dynamic is difficult and hard on male climbers too. I think they struggle to admit that they don't know something".

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Peggy illustrates how gender stereotypes stop her from speaking up in her own community.

> **Peggy**: "As a female, I'm more concerned to be publicly shamed because it would reinforce a stereotype that I can't do things on my own. I just think if anything bad happens on my watch when I'm not with, say, men around, I would be subject to more criticism. That sometimes stops me from commenting on social media".

In sum, participants in this study illustrated where gender stereotypes, often those present in mainstream society, affect their experiences in rock climbing. There is an underlying belief that males are stronger, more experienced, and more capable. That women are less skilled and less capable than their male counterparts (Warren & Loeffler, 2006). Although participants talked about climbing being an inclusive space, they relayed opinions and experiences that showed that practices and beliefs still create inequalities and exclude some individuals based on gender, race, ethnicity, social status, and economic factors.

**Othering**

Social and cultural exclusion is tied to the phenomenon of othering (Baak, 2019). Othering occurs when differences between groups of people are highlighted to insult or exclude them (Curle, 2022). It is a two-step process that first requires categorizing people into groups based on differences like gender, race, religion, sexual orientation, etc., and second, alienating that group by identifying them as inferior (Curle, 2022). Placing people in categories based on superiority and inferiority is hierarchical (Clint Curle, 2022). In rock climbing and other sports, the normalizing of white heterosexual male experiences lead to the dominance of idealized masculine culture, creating an environment that promotes the othering of individuals that do not conform to or at least embrace idealized masculinity and heteronormativity (Breitwieser & Scott, 2021; Li, Sotiriadou, & Auld, 2015; Vietinghoff,

2021). Below are just some of the numerous photographs and stories shared by participants that highlight their experiences of othering in rock climbing communities, discussed in the context of *hierarchies* and *microaggressions* that create the feeling of us vs. them.

### *Hierarchies*

Hierarchies in climbing are numerous and include climbing grade, those who climb 5.10 and above vs. those who climb below 5.10; commitment to the sport, those who dedicate their lives and time to climbing vs. the weekend warriors; risk, those who take risk vs. those who avoid it; toughness, those who tough it out vs. those who show emotionality (Draper, 2011; Kiewa, 2001; Langseth & Salvesen, 2018). All participants illustrated and discussed numerous contexts and situations that highlight the existence of a hierarchical culture, in multiple contexts and situations, including perceived hierarchies related to gender-based in the ideology of hegemonic gender expectations. Tasha illustrates hierarchy in relation to top roping vs. lead climbing and relates it to gender.



**Tasha:** "Here, I'm on top rope, I'm kind of a purist, I try not to top rope. This is going to sound elitist, but top roping's a weakness, you know what I mean? You know, especially for females. Nobody thinks twice when they see a girl top roping, doesn't matter if it's a 5.13 or it's a 5.8, like, oh, she's top roping, no surprise. I put that extra step forward and I try to lead everything. Then people notice".

*Figure 14. "Exposure"*

Tasha has highlighted othering in two contexts; first, in those who lead climb being valued over those who top rope, and second, in a sport where the assumption is that women are more likely to top rope and top roping is a weakness women are being othered through the

stereotype women are weaker and less capable climbers (Allee, 2011; Plate, 2007; Robinson, 2016; Kiewa, 200; Hill, 2002). Kate explains how she feels that characteristics associated with being female are not valued in professional climbing spaces - showing a clear gender hierarchy.

> **Kate:** "More 'female' characteristics would not be respected in the guiding community as valid characteristics. Like being more supportive and providing teaching and learning opportunities. Lots of guides [both male and female] have these characteristics and value them. But in the more formal representation of the community (professional organizations), it is more about ego and stuff like that (danger and risk being seen as important)".

It is well documented and illustrated by these participants and previous research literature that hierarchies exist within the culture of rock climbing (Allee, 2011; Appleby & Fisher, 2005; Draper et al., 2015; Rickly, 2016; Rickly-Boyd, 2016; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). This includes gender hierarchies that place male climbers in positions of power, culturally men are seen as stronger and more capable rock climbers (Allee, 2011; Appleby & Fisher, 2005; Chisholm, 2008; Jordan, 2018; Robinson, 2016; Wigglesworth, 2021).

*Microaggressions*

Microaggressions are comments or actions used to assault, insult, devalue, and disrespect. There are two types: 1) Microassults are defined as sexist, racist, or homophobic comments/actions made consciously by the aggressor; 2) Microinsults are defined as subtle and sometimes unconscious sexist, racist, or homophobic comments/actions. Microinsults can be more stressful because they leave the victim utilizing personal energy to determine the aggressor's intention and feeling guilty for possibly taking the comment the wrong way (Jordan, 2018). All participants discussed experiences of feeling devalued, disrespected, or

insulted at times by other members of the climbing community, more specifically by male climbers. In many instances, they felt these experiences directly related to gender – being a woman. Experiences of microaggressions emerged in the context of condescending remarks, generalizations, and disrespect for feminine characteristics. Beth shares a photo that illustrates an insulting experience she feels in common with rock climbing.

> **Beth: "**I feel like when climbing with male partners, they look down at me more often. I get comments like make sure you're on top of your belaying, or maybe you should use a grigri. I have never had a woman tell me how to belay or be careful when belaying. It makes me feel anxious".



*Figure 15. "Grigri vs. ATC"*

Beth explains that male climbers often question her ability to belay safely. She states that she feels more "supervised when climbing with boys". She also explains that these experiences affect her identity as a climber by reminding her that she is seen as a "female climber", instead of a climber. Because women are often perceived as less skilled and less capable in outdoor recreation, including climbing, subtle comments such as the one above can be perceived as criticism founded in gender stereotypes (Allee, 2011; Chisholm, 2008). The men making these comments may not intend to offend women. Still, within the larger cultural context, this is a form of microaggression, especially if they are comments only directed at women and rarely, if ever, directed at male climbers (Climbing, 2016; Jordan, 2018). Kate illustrates a common microaggression women hear when climbing (Allee, 2011).

> **Kate:** "[I hear comments] like, oh, you're strong. I can't believe you climbed that. I'd be like, yeah. If that was a guy who climbed that, you wouldn't be saying that right now".

Peggy highlights a friend's experiences of microinsults by an ex-partner.

> **Peggy:** "My friend, she dated someone well known in the community and he kind of crushed her in the sense that he'd say, "oh, we're just going to take it easy today".

Tasha illustrates her experience with a condescending microassault from a former supervisor at a climbing gym.

> **Tasha: "**As a joke, he'd be like "stop being such a girl".

"Stop being a girl" is often an insult directed at boys and men acting weak, a way to tell boys and men to suppress their emotions (Ford, 2019; Sexton, 2019). It implies that she should stop acting like a girl because acting like a girl is not acceptable in the environment she is in. Microaggressions convey gender stereotypes and biases against women and prevent women from feeling entirely accepted into a group, community, or culture (Jordan, 2018). Beth's comments more fully illustrate this.

> **Beth:** "[I'm reminded of the] generalizations made to girls, like girls can do that specific climb because they have small fingers, or you can do that because girls are more flexible, or It's easier for you to stem up that mantle because you're lighter. You don't have as much of a load on you.
>
> Instead of, she's very strong, and she is able to do those climbs, [they make it about her] small fingers. Comments like that make me feel less legitimate. Like it was not my personal strength and my personal mental game, it's about [how] being a woman makes it easier to be a climber".

In general, these examples demonstrate that women only sometimes experience a socially inclusive cultural environment in rock climbing. A culture dominated by idealized masculinity and gender stereotypes makes it difficult for women to feel safe, respected, and free to participate and express themselves fully. This is not to say that these women do not find safe, supportive, and fulfilling communities to climb in. Not all climbing communities or climbers provide supportive social and culturally inclusive environments for women.

Beth eloquently wraps up these experiences with a familiar feeling experienced among women who climb. She states, "I'm not just a climber; I'm a lady climber". She explains this feeling in her statement below:

> **Beth**: "Do you ever hear people say I'm a male climber? No. I feel I hear women climber more often than male climber. [People] just assume climber is male, kind of like the female doctor thing, a doctor or a female doctor".

Beth's comment exemplifies her experience of feeling excluded based on her gender. A lack of culturally and socially inclusive environments shows that women's experiences in climbing are like other professions and recreational spaces in mainstream society. To further address Beth's comments above, a recent survey published in the Canadian Medical Journal News reported that only 5% of people presume a doctor will be female (Vogel, 2019). The same report referenced a Harvard study that showed people associated male names with doctors and women's names with nurses (Pappas, 2016). We know these perceptions are still being perpetuated because seven out of ten primary school-aged children in the United Kingdom also identify doctors as men and nurses as women (Pappas, 2016).

These illustrations suggest that in specific contexts and situations, women are still experiencing marginalization and othering in rock climbing communities. It is an experience that leaves them feeling like outsiders and less legitimate than their male counterparts. Othering creates an us vs. them culture, and because masculinity is dominant, holds more value, and is celebrated in rock climbing, it is harder for women to feel like they entirely belong (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2007; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). Even when they are not directly marginalized or discriminated against, these women appear to hold beliefs that they are or are seen as

inferior climbers, especially in the presence of some male climbers. Because idealized masculine traits and characteristics appear to be more valued and accepted, women are left feeling like female climbers instead of climbers.

## Discussion

This paper highlights the experiences of five participants who identify as women and rock climbers. Participants chose photographs and through those photographs, created an interpretation of their experiences and perspectives, illustrating how their experiences in climbing relate to gender and female climber identity. Data analysis highlighted three major themes: 1) Sense of Belonging, 2) Equity, Diversity, and Inclusion, and 3) Othering. Interestingly, results indicate that women feel a sense of belonging and find legitimacy within climbing communities. They also questioned the inclusivity of the sport and culture due to experiences that leave them feeling marginalized, especially some experiences with male climbers. All participants illustrated experiencing barriers that leave them feeling like less legitimate rock climbers than their male counterparts. Like other women who climb, these women expressed validation and acceptance while at the same time feeling placed on the peripheral of the community instead of fully a part of it (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2007; Vodden-McKay & Schell, 2010; Wigglesworth, 2021).

Previous research shows the importance of proving one's commitment to the sport and adherence to cultural standards to gain membership and legitimacy in climbing communities (Allee, 2011; Appleby & Fisher, 2005; Coakley & Donnelly, 2005; Dilley, 2012; Dumont, 2016; Langseth & Salvesen, 2018; Rickly, 2016; Robinson, 2016). Results from this study show that gaining membership and validation was important to these participants. Like male participants in Langseth and Salvesen (2018) study, these women

also felt pressure to prove themselves due to a need to feel a sense of belonging and legitimacy as a climber. Like other female climbers, these participants also highlighted the value of relationships in rock climbing and illustrated how more positive climbing experiences occurred when climbing with individuals who share their values and goals and validated their experiences as female climbers (Dilley, 2012; Dilley & Scraton, 2010; Kiewa, 2001b; Robinson, 2016). These participants were similar to other female rock climbers in their need for connection and relationships. They felt supportive and trusting while wanting to work hard, set goals, and challenge their mental and physical strengths (Allee, 2011). Experiences of being praised, trusted, and supported by other climbers was a validating experience for these women, helping them feel a sense of belonging, confidence, and climber legitimacy (Allee, 2011; Dilley, 2007; Hansen & Parker, 2009; Langseth & Salvesen, 2018). Praise came from verbal compliments and words that implied approval and admiration (Jonsson & Beach, 2012; Oxford Languages). Trust and support came from connection and relationship with other climbers (Kiewa, 2001a; Plate, 2007).

Results also indicate that women still experience high levels of male gatekeeping in rock climbing (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2012; Dilley & Scraton, 2010; Kiewa, 2001b; Robinson, 2016; Wigglesworth, 2021). All participants accessed the sport of rock climbing through male coaches, instructors, and teachers as gatekeepers (Appleby & Fisher, 2005). All but two participants gained access through close personal relationships with male climbers (Allee, 2011; Appleby & Fisher, 2005). Indicating that even after ten years of women's progress and an increase of participation by approximately 40% within the sport, women are still accessing rock climbing predominantly through male gatekeeping (Dwyer, 2019; Tilton, 2016). What was more interesting was that four out of five women felt compelled to express that despite access through male gatekeepers, their

aspiration to climb came from their desire to challenge themselves in outdoor adventures. Studies show that when women access a sport through male gatekeepers, they often feel the need to establish their independence from male partners, coaches, and teachers (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2012; Dilley & Scraton, 2010; Dilley, 2007; Evans & Anderson, 2018; Kiewa, 2001b). Common gendered stereotypes in climbing also leave women feeling the need to assert their independence. Terms like "crag girlfriend" or "belay bunny", derogatory terms that imply a woman is more interested in climbing to gain male attention than committed to the sport, leave women feeling the need to distance themselves from these labels and stereotypes (Allee, 2011; Appleby & Fisher, 2005; Dilley, 2012; Robinson, 2016). The (Allee, 2001; Robinson, 2016).

After participants were more established in the sport, owned their own gear and had a few consistent climbing partners, they reported that finding female partners was more accessible. This contrasts earlier studies where women reported difficulty finding female climbing partners due to the disproportionate amount of male climbers in climbing communities (Allee, 2011; Appleby & Fisher, 2005). With increases in women's participation in climbing over the last ten year, it appears that female partnership is more accessible than before. Two participants in this study even discussed how they had an equal balance of male and female climbing partners. One participant stated that she climbed almost exclusively with other women. But finding female mentorship is still difficult and for two participants was non-existent. Only three participants gained female mentorship in the sport. All participants stated that female mentorship is lacking in the sport, and more women need to be in leadership roles (Allee, 2011; Appleby & Fisher, 2005; Evans & Anderson, 2018). With more women participating in climbing, it is surprising that there are

still so few female mentors, leaders, coaches, and instructors (Julie Ellison, 2017; Kathy Karlo, 2020; Kaya Lindsay, 2019). We can also see from participants comments that access to female climbing partners and mentors is a rewarding experience for women and is important. Female partners and mentors provide opportunities for women that male climbing partners cannot (Kiewa, 2001b). Climbing with other women allows women to gain more confidence in their abilities, provides women with more opportunities, and influences women and girls to pursue their goals (Avery, Norton, & Tucker, 2018)

Three out of five participants accessed or tried to access professional climbing careers. All encountered barriers due to male gatekeeping. All expressed frustration with the process of gaining access to advanced learning opportunities. Previous research shows that women attempting to gain access to outdoor recreation careers, including climbing, encounter many gender barriers due to gender expectations and male dominance in outdoor professions (Crush, 2013; Doran et al., 2018; Evans & Anderson, 2018; Frohlick, 2006; Gilchrist, 2007; Gray & Mitten, 2018; Halley, 2017; Summers, 2007). One participant was completely denied access and unable to pursue her professional goals. Hegemonic gatekeeping, discussed in detail below, appears to be a consistent and common theme for participants attempting to access professional climbing careers (Doran et al., 2018; Evans & Anderson, 2018; Hunt, 2019; Sharp, 1998; Summers, 2007). Gatekeeping is especially common in professional climbing spaces such as route setting and various forms of outdoor guiding - outdoor rock, alpine climbing, and mountaineering; where women are expected to be less skilled, less valuable, and perform less valuable roles than male co-workers (Doran et al., 2018; Evans & Anderson, 2018; Hunt, 2019; Sharp, 1998; Summers, 2007; Warren et al., 2019; Warren, Risinger, & Loeffler, 2018).

Creating a culturally inclusive environment includes effective relationships, mutual respect, and critical self-reflection (Lu et al., 2010; Mak & Barker, 2013; McGannon, Schinke, Ge, & Blodgett, 2019; Ratten & Jones, 2018). If successful, individuals in a culturally inclusive environment should experience the freedom to express themselves and their opinions, participate fully in learning, teaching, and working, and feel safe from abuse, harassment, and criticism (Gunawardena, Frechette, & Layne, 2018). Looking at these women's experiences through a culturally inclusive lens allows us to see that a culturally inclusive environment does not always exist in rock climbing communities. One participant, Rose, expressed that in her experiences, organizational decision-making in climbing communities is "male-dominated" and non-inclusive to women. Like other sporting women, these women felt they had to work harder to gain and maintain acceptance in climbing communities. They also felt that women were seen as weaker, not capable, and not knowledgeable enough to participate by some community members (Appleby & Fisher, 2005; Barrett, 2015; Brown, 2014; Evans & Anderson, 2018; Forsyth, Jones, Duval, & Bambridge, 2019; Mitten, Gray, Allen-Craig, Loeffler, & Carpenter, 2018).

All participants, either in a recreational or professional setting, experienced hegemonic gatekeeping. Hegemony is possible due to power imbalances within society, cultures, groups, and organizations (Herrmann, 2017). Power imbalances are a product of cultural ideals, norms, standards, and regulations being widely accepted within a group and leading to the dominance of one group over another (Herrmann, 2017; Schmidt, 2020). As Herrmann (2017) explains, cultural ideals and norms are developed by those in control. They are often adopted and maintained even by those at the "lower levels of hierarchy", even ideals and norms adversarial to themselves (p. 1). In this context, hegemonic gatekeeping is based on the patriarchal ideology that places men in positions of power and

control (LaVoi et al., 2019). Although it might be common to hear rock climbers espouse inclusivity in the sport, the reality is that hegemonic practices are present and perpetuated in climbing culture (Allee, 2011; Appleby & Fisher, 2005; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). Participants in this study illustrated the presence and continuation of hegemonic gatekeeping practices and their maintenance through adherence to traditional ideas of femininity and masculinity. Women in this study illustrated their personal experiences with hegemonic gender gatekeeping through stories of gender stereotypes that placed men in positions of power, experiences of the objectification and sexualization of women, the maintenance of hegemony through hierarchies, adherence to traditions, and sexist microaggressions. Illustrating that strong adherence to outdoor education and rock climbing traditions often founded on patriarchal ideas of women being weak, needing protection, less capable of technical skills, and inferior to men are still a dominant part of the culture (Mitten, 2018a; Mitten et al., 2018; Raughter, 2015; Warren et al., 2019; Webster, 2001). These participants illuminated a culturally maintained belief of masculine/male superiority in rock climbing (Allee, 2011; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). For some participants, this was even through their comments that male climbers were stronger and more capable climbers. Arguments for maintaining traditional standards that perpetuate male dominance, gender stereotypes, and the objectification of women are often reported in rock climbing and outdoor education (Mitten, 2018a; Plate, 2007; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). When women try to report or speak up about these experiences, they are dismissed when told to "lighten up", or it is "just a joke, predominantly by men and sometimes by other women (Bemiller & Schneider, 2010). Being dismissed is a frustrating experience that leaves women feeling like they don't have a voice or ability to create meaningful change in their

communities (Wigglesworth, 2021). Microaggressions are commonly found in rock climbing cultures and were illustrated by these participants. The fact that there are derogatory terms for women like "belay bunny", "belay bitch", and "crag girlfriend", but terms explaining men who are out belying women don't exist is a clear indication the microaggressions exist and are perpetuated in the culture.

Results also indicate that some women struggle to adhere to a culture dominated by idealized masculinity. Because climbing is rooted in a historically male-dominated culture and less welcoming to women (Gray & Mitten, 2018; Mitten, 2018a), it is also not surprising that these women questioned segregation within climbing communities. The culture, underlying values, philosophies, and relatively unwritten rules and regulations among the climbing community are often barriers for individuals who do not fit the stereotypical outdoor male persona (Wigglesworth, 2019). Women often feel frustrated by constantly needing to prove themselves and compete (Plate, 2007). Not because they don't value competitiveness, strength, climbing hard, and even taking risks. It appears to be more about feeling like they are seen first as women, with all the gender stereotypes attached to being feminine and the stigma that they are less legitimate climbers. Participants also highlighted their frustration with a lack of acceptance of feminine values, philosophies, and characteristics, especially at the professional level (Adams & Leavitt, 2018; K. L. Anderson, 2001; Appleby & Fisher, 2005; Gorner, Greganova, & Kusnierz, 2019; Hindman & Walker, 2020; Mitten, 2018a; Mitten et al., 2018).

As previously mentioned, participants who engaged or attempted to engage in professional climbing careers felt they faced more challenges and barriers than they did at the recreational level. This was especially true in outdoor guiding and route setting. Again, these findings are not surprising as at indoor climbing gyms across Canada, only 49 out of

250 route setters identify as women (Bruijn, 2019b). It is believed that women have limited access and success in route setting and guiding because they are poorly represented in leadership and decision-making positions in climbing organizations (Halley, 2017). Women's representation in any professional climbing space is nowhere near their representation in recreational climbing (Halley, 2017). Most indoor gym climbers report the climbing gym as a welcoming environment (Lee, Rutkowski, & Ewert, 2020). Outdoor climbing is more routed in OEE values and philosophies. Wigglesworth (2021) found that women and others belonging to minority groups often feel unwelcome in outdoor climbing spaces due to its adherence to patriarchal and colonizing traditions.

**Limitations**

This study was limited due to the Covid-19 pandemic. The pandemic limited recruitment to online methods through the Association of Canadian Mountain Guides, via mass emailing members and personal word of mouth. Recruitment at local climbing gyms through posters was impossible as all gyms were closed. Limiting recruitment to only ACMG members. The stress of the pandemic made recruitment and retention of participants challenging. Initially, eight individuals reached out; two did not connect with the PI past initial interest, and another had to drop out before the data collection phase for personal reasons. Due to the extra stress on women, especially mothers, during the pandemic, no women who were mothers signed up for participation. This is a limitation because a large amount of research indicates that women with children have a more challenging time managing motherhood and climbing careers or serious leisure climbing interests. Lastly, due to the pandemic, participants opted to select photos that they had previously taken. Because climbing gyms were closed, and local outdoor crags were off-

limits due to travel restrictions, participants could not get pictures of recent experiences. To complete the research in a timely manner, participants mainly chose old photographs.

Although some participants did boulder and trad climbing, this study lacks discussion around bouldering and traditional climbing, limiting findings to sport, alpine, and mountaineering experiences. Another limitation is a lack of diverse perspectives from male climbers, gender non-conforming climbers, and climbers of differing races, ethnicity, abilities, and sexual orientations. It is hard to say if these women's experiences are specific only to individuals identifying as women. Due to the nature of qualitative research, this study is also limited in that all stories, accounts, illustrations, and experiences are self-reported and rely on participant recall; therefore, it may include recall biases. Qualitative processes also do not allow for the investigation of causality. Therefore, this study does not claim a causal nature in study findings. Findings are limited to the experiences of these five women and what they can recall and remember of incidents that happened to them in the past.

**Future Research**

As expressed by Mitten (2018a), it is not as simple as "adding women" to the mix (p. 25); values, philosophies, strengths, traits, and characteristics associated with femininity need to be accepted, valued, and even celebrated to make outdoor spaces more inclusive for everyone, including male climbers. Findings indicate that future research directions should include investigating a deeper understanding of systemic and cultural gatekeeping structures in rock climbing. Female mentorship and partnership, specifically women's desire to engage in female mentorship and how to increase female mentorship in the sport, should be studied and addressed.

Future research should investigate the experiences of individuals who identify as women in a more inclusive context; recruitment of women of colour, gender and sexually diverse individuals, and people with disabilities would facilitate a more diverse and intersectional understanding of the current climate and culture in rock climbing. Focusing on women's experiences in outdoor, indoor, professional, recreational, and differing modalities of climbing at all levels would allow for a better understanding of the needs and future considerations needed to create more inclusive, diverse, and equitable space in rock climbing. The broad approach to this study made it difficult to understand the experiences of women in specific contexts and situations, and a more in-depth look at the experiences of women at differing levels, modalities, and cultural spaces would allow for a deeper understanding of women's experience in the sport and culture of rock climbing.

Study findings point to future research directions into the further investigation of women's experiences with belonging, gatekeeping, equity, diversity, inclusion, othering, and microaggressions. Further research is needed into how women currently access the sport of rock climbing and how they are affected by hegemonic gender expectations in a masculine-dominated sport. A quantitative study measuring the frequency and rate at which women experience gender discrimination would give a better indication of how problematic discrimination is in the sport for women. Investigating other women's experiences in different regions of Canada and other international climbing communities might show new findings and further validate past and current studies. It is evident that gatekeeping, more specifically male-dominated, exists within the sport and culture of climbing. Research conducted within or with climbing organizations, such as the ACMG and Alpine Club of Canada, is needed to inform policy, education, and organizational changes at the professional level. Finally, the investigation into male experiences to access is also

required. Without male participants, this study was limited to women's experiences and

perceptions of navigating access within the sport. Understanding male experiences would

allow for a more in-depth and considerate analysis of gender experiences in the sport and

culture of rock climbing.

# CHAPTER FOUR: CONCLUSIONS AND DISSEMINATION

## Conclusion

To date, research on women's experiences in rock climbing has been limited to the exploration of gender constraints in leisure activity, how gender expectations confine female climbers, how women build identities as climbers, and the physical, psychological, and sociological differences female climbers exhibit in comparison to male climbers (Allee, 2011; Evans & Anderson, 2018; Evans & Gagnon, 2019; Feher et al., 1998; Manovski et al., 2018). Gender discrimination is reported throughout academic literature and consistently discussed by women on social media forms and climbing media (Allee, 2011; Bruijn, 2019a, 2019b; Halley, 2017; Kaya Lindsay, 2019; Summers, 2007; Vodden-McKay & Schell, 2010; Wigglesworth, 2021). The purpose of this study was to give individuals who identify as women the opportunity to highlight and share their experiences with gender in rock climbing, including discrimination—given these women the opportunity to share photos that they took and chose allowed them to share their experiences in a way that was personal and unique to them and their experiences. As women's participation in rock climbing grows, there is a need to understand what challenges women face and how gender relations affect their experiences as they pursue careers and leisure in the sport. Because this study included only participants from Western Canada, this study is the first to portray the experiences of individuals who identify as women from a Western Canadian perspective.

Regardless of professional or recreational spaces, women in this study and previous studies have illustrated the need to work harder to gain legitimacy because of gender stereotypes that perpetuate the image that women are not as committed or as strong and

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capable as male climbers (Appleby & Fisher, 2005; Kiewa, 2001a; Plate, 2007). To quote one participant, women's experiences leave them feeling like "female climbers" and not like entirely legitimate climbers in some contexts, situations, and communities within rock climbing. Results indicate that because of compliance with hegemonic gender norms and gender normativity, women continue to face barriers and challenges when pursuing leisure opportunities and careers in rock climbing (Dilley & Scraton, 2010; Jackson, 2018; Summers, 2007). Some rock climbers and climbing communities lack culturally inclusive environments that allow women to feel respected, free to express themselves and participate fully, and free from abuse, harassment, and criticism. Participants described several examples where they or other women they knew were silenced (lacked freedom of expression), dismissed, undervalued, not respected, and not allowed to participate fully in professional and recreational spaces because they were women. Although these women felt strong, confident, and determined to reach their climbing goals, they also felt marginalized to the periphery of the community. These women did not feel entirely accepted or respected as climbers based on gender stereotypes placed on them, primarily by male climbers. Not all these participants experiences were negative, but they appear to have suffered enough discriminating and martializing experiences that they felt they would never gain complete climber legitimacy.

### Dissemination

Study findings will be summited for publication in academic journals. Presentations will be given to board members at the ACMG and the Alpine Club of Canada. Upon request from these organizations, other presentations or reports will be completed for teachers, instructors, members, or industry leaders. It is planned that this work will also be showcased

at the Banff Mountain Film Festival; discussions with the event organizers have been ongoing. I will also reach out to women's climbing organizations like *Flash Foxy* and climbing magazines and podcasts to see if there is any interest in sharing findings with their staff, members, readers, and listeners.

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# APPENDICES

## Appendix A: Literature Review Article Analysis and Synthesis

| Author/Date | Sample | Design | Country | Outcomes |
|---|---|---|---|---|
| Allee, 2011 | N = 30 (male and female) | Qual GT[a] | USA | Women find climbing a space where they can feel unique and talented |
| Appleby et al, 2005 | N = 8 (female) | Qual IA[b] and CA[c] | USA | Compliance to hegemonic gender norms, questioning norms, resisting norms |
| Burnik et al, 2008 | N = 33 (male and female) | Quant Survey | Slovania | No difference found in risk taking and sensation seeking behaviors of men and women |
| Chisholm, 2008 | N = 1 (female) | Qual Case Study | USA | Exploration of embodying the female body for movement in climbing |
| Dilley, 2007 | N = 9 (female) | Qual TA[d] | UK | Women's climbing physicality, bodies, experiences, and representation |
| Dilley et al, 2010 | N = 19 (female) | Qual TA | UK | Constraints on serious leisure found and negotiated strategies identified |
| Doran et al, 2018 | N = 314 (female) | Quant FA[e] | UK | Perceived constraints found in mountaineering tourism and negotiation strategies identified |
| Evans et al, 2018 | N = 3 (female) | Qual Case study | USA | Constraint negotiation strategies found in mountain guides. |
| Evans et al, 2019 | N = 792 (female and male) | Quant SEM[f] | USA | No perceived constraints for female competition climbers, at this level there may not be any, or negotiation may have occurred |
| Feher et al, 1998 | N = 57 (female and male) | Quant Survey | USA | No majorly reported state and trait attribute difference between females and males |
| Frohlick, 2006 | N = 2 (female) | Qual Eth[g] | Canada | Mothers are portrayed differently than fathers, and face more challenges than fathers in their choice to climb |
| Ozen, 2018 | N = 180 (female and male) | Quant pre-post survey | Turkey | State anxiety found to be greater in females in regards to climbing activity |
| Garrido-Palomino et al, 2019 | N = 43 (female and male) | Quant Survey | Spain | Association between emotional intelligence and self-reported climbing ability, no difference between gender |

| Gems, 2017 | N = N/A (female) | Qual Eth | UK | Examination of frontier theory in climbing and cycling. Gender obstacles to participation found, class and wealth |
|---|---|---|---|---|
| Gilchrist, 2007 | Review of media (female and male) | Qual Eth | UK | Difference between the treatment of climbing mothers compared to climbing fathers |
| Gurer et al, 2015 | N = 144 (female and male) | Quant t-test and ANOVA | Turkey | Difference between Turkish female and male climber's handgrip strength, but not for other countries |
| Hill, 2002 | N = 1 (female) | Autobiography | USA | Lynn Hills self-autobiography of her climbing accomplishments and struggle to achieve success in the climbing community that was male-dominated |
| Holland-Smith, 2016 | N = 2016 (female and male) | Qual Eth | UK | Assessment of class and gender in adventure climbing. Middle class negotiations and status, women found to have more obstacles to access and participation |
| Holland-Smith, 2017 | N = 11 (female and male) | Qual TA | UK | Social media, increase in female participation and younger individual making changes to social negotiations in climbing culture, increases to middle class spaces with increased into gyms |
| Huey et al, 2007 | N = 2211 (female and male) | Quant LR[h] | USA | No difference between death rate, success rate, and decent death rate among women and men climbing Everest |
| Kiewa, 2001 | N = 31 (female and male) | Qual GT | Australia | Climbers construct identity through heroic narratives, similarities and difference between women and men |
| Kiewa, 2001 | N = 31 (female and male) | Qual PAR[i] | Australia | Stereotypical gender assumptions play a role in the expectations of climbers and choices into climbing relationships |
| Llewellyn et al, 2018 | N = 201 (female and male) | Quant Survey | UK | Climber take calculated risks and attempt harder climbs when they feel confident in their abilities and have high self-efficacy. No significant differences were noted between gender or age. |
| Llewellyn & Xavier, 2008 | N = 116 (female and male) | Quant Cross-Sectional Study | UK | Association with high risk behaviors and self-efficacy, males take increased risks and are significantly higher in self-efficacy than women. |
| Manovski et al, 2018 | N = 16 (female and male) | Quant NA[j] | Serbia | No difference in time or technique used by female and male ice climbers |

| Plate, 2007 | N = 10 (female and male) | Qual EPO[k] | UK | Gender relations and gender roles in climbing participants, multiple differences and similarities found |
|---|---|---|---|---|
| Reeves et al, 2017 | N = 10 (female and male) | Qual TA | Canada | Body image for climbers is associated with climbing culture and expectations, for recreational climbers it can be empowering and for competitive climbers there is an increase in body dissatisfaction and eating disorders |
| Summers, 2007 | Review of Media (female and male) | Qual Eth | UK | Unequal gender expectations placed on female climber, mothers, motherhood and climbing |
| Vodden-McKay et al, 2010 | N = 114 (issues of *Climbing* magazine | Mixed Hermeneutics | N/A | Differences in the way the media portrays women, diminishes their achievements |
| Wigglesworth, 2021 | N = 34 | Qualitative Interviews and Focus Groups | Canada | Women's reactions to misogynistic route naming in rock climbing were for frustration. Women felt objectified, excluded, and helpless in changing the culture. |
| Carroll, 2021 | N = 90 (3 female and Male 87) | Quant Analysis of male vs female climbers' performance gaps | N/A | There is a uniquely narrow performance gap between female and male climbers comparted to long distance runners. |

Notes: [a] Grounded Theory, [b] Inductive Analysis, [c] Comparative Analysis, [d] Thematic Analysis, [e] Factor Analysis, [f] Structural Equation Modeling, [g] Ethnographic, [h] Logistic Regression, [i] Participatory Action, [j] Notation Analysis, [k] Exploratory Participant Observation,

# Appendix B: List of Definitions

## Types/Ways of Climbing

**Bouldering** - Climbing on a boulder that is close to the ground without the use of a rope. Can also be done at the base of a rock face.

**Climbing** - Movement upward on rock, snow, ice, or a mixture of ice, rock, and snow. Rock climbing can be included in alpine hiking/climbing and mountaineering.

**Free solo** - Climbing without a belay, which is usually very high risk. Unlike bouldering, free soloing goes far above the ground on full-length routes.

**Lead** - To be the first person on a climb, either clipping the rope into bolts or placing protection as you go. Belayed by the second, below you.

**Sport climbing** - Rock climbing using pre-placed protection such as bolts or a rope anchored to the top of the climb (see Top Rope). Opposite of traditional climbing.

**Traditional or "trad"** - Rock climbing using protection placed by the lead climber and removed by the second, as opposed to sport climbing, in which protection (bolts) is pre-placed.

**Top rope** - A rope that is passed through a fixed anchor at the top of a climbing wall or cliff, with each end tied to the climber and the belayer at the bottom. A top rope (with a watchful belayer) ensures that the climber is always protected from falling very far and is thus a good way to learn to climb. "Top-roping" is the term for this type of climbing.

**Multi-pitch** - A climb longer than one rope length. Usually, climbers take turns leading and following to complete a route that has more than one pitch (See Pitch).

**Ice Climbing** - Ice climbing is the activity of ascending inclined ice formations. Usually, ice climbing refers to roped and protected climbing of icefalls, frozen waterfalls, and cliffs and rock slabs covered with ice.

**Mixed Climbing** - Mixed climbing is a combination of ice climbing and rock climbing generally using ice climbing equipment such as crampons and ice tools.

## Belaying and Belay Devices

**Belay** - To keep a climber from falling too far by using friction on the rope. The system that stops a climber's fall. It includes the rope, anchors, belay device and the belayer.

**Belayer** - The person who manages the rope to catch the climber on the other end in case of a fall or a slip.

**Grigri** - The first popular belay device with an auto-locking mechanism to catch a climber's fall. Made by Petzl (between $100 - $130).

**ATC** - is one of the most common belay devices used in rock climbing. Does not have an auto-locking mechanism, it relies more on the belayer's skills to catch a climber in a fall ($40 - $80).

## Climbing Lingo and Terms

**Beta** - Information about a climb. "Running beta" is information given while the climb is being executed.

**Crag** - A small cliff, or the term for a climbing area

**Follow/Second** - To be the second up a climb. In traditional climbing, to remove and collect the protection that the lead climber has placed; To follow or be the second climber on a rope team.

**Gym**—Indoor climbing facility. Inhabited by gym rats, or climbers who spend all their time on artificial walls.

**On sight**—To lead a climb on the first attempt without prior knowledge of the route or moves. Applies to difficult climbs.

**Pitch**—The length of a climb that can be protected by 1 rope length. A pitch is led by the lead climber and cleaned by the second (or follower)

**Red point**—To lead a climb without falling or putting weight on the rope, regardless of number of attempts. Applies to difficult climbs.

**Route:** A climbing route is the path a climber takes to reach the top of a climb. Routes vary in difficulty and grade.

**Flash:** Means you climbed a route on your first attempt, with prior information on the climb.

**Send/Sent:** Successfully completing a route.

# Appendix C: Participant Demographic Information

**Table 1**

*Participant Demographic Information*

| Participant | Age | Marital Status | Children |
|:---:|:---:|:---:|:---:|
| Beth | 18-30 | Common Law | No Participants Had Children |
| Peggy | 38-50 | Common Law | |
| Rose | 18-30 | Single | |
| Tasha | 18-30 | Single | |
| Carly | 31-40 | Single | |

# Appendix D: Participant Climbing Demographic Information

**Table 2**

*Participants Climbing Demographic Information*

| Participant | Intro to Climbing by | Climbing Partners | Years Climbing | Climbing Grade | Professional | Climbing Type |
|---|---|---|---|---|---|---|
| Beth | Boyfriend and His Brother | Both, but mostly with boyfriend | 5 years | Boulder V2-3, Outdoor 5. 10c Lead | Leisure Only | Boulder, Sport, and Trad |
| Peggy | Coworkers Boyfriend and Ex-boyfriend | Both, but mostly boyfriend | 9 years | Indoor 5.11a and Outdoor 5.10a | Leisure Only | Sport, Ice, Mountaineering And Alpine |
| Rose | Women's Climbing Course (One female and one male instructor) | Mix, but predominantly female | 8 years | Indoor 5.11c and Outdoor 5.11b | Indoor Climbing Instructor/Working on ACMG route to Guiding | Sport, Trad, and Ice |
| Tasha | Ex-boyfriend | Both, Mostly Male Partners | 3 years | Indoor 5.12 and Outdoor 5.12b | Route Setter (Quit just recently) | Sport, Trad, Ice, and Mixed |
| Kate | Friend (Male) | Both, In the beginning mostly males | 15 years | 5.12 Indoor and Outdoor | Climbing Guide | Sport, Trad, and Bouldering |

## Appendix E: Semi-Structured Interview Questions

1. What do you see in the photographed image?

2. Where were you when you photographed this image?

3. What is happening?

4. Why did you photograph this specific image?

5. Does this photo relate to your experiences as a climber?

6. Does this photo relate to your identity as a climber?

7. Does this photo illustrate an opportunity or challenge in your experience as a climber?

8. What would you name this photo?

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**TITLE:** Exploring Women's Experiences and Gender Relations in Rock Climbing: A Participatory Action Research Photovoice Study

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This letter is only part of the process of informed consent. It should give you a basic idea of what this project is about and what you are being asked to do. If you would like more details, please ask. Take the time to read this letter carefully. You can request either a digital or paper copy of this letter at any time.

## WHAT IS THE PURPOSE OF THE PROJECT?

The purpose of this project is to explore the experiences of individuals who identify as women and who climb either recreationally or as a career and gain a better understanding of their experiences with gender relations in the climbing community.

## HOW WILL PARTICIPATNS EXPLORE THEIR EXPERIENCES?

This project will be utilizing a photovoice method. Photovoice is a method which requires its participants to engage in research by taking photos, sharing those photos with the researcher, and narrating their experiences through discussion with the researcher.

## WHAT WILL HAPPEN DURING THE PROJECT?

We will be exploring women's experiences with gender relations in the climbing community through five stages of photovoice. These include:

*Stage One:* This stage will require you to commit to participating in a 30-60 min information session. Here you will be given information on the project, needed background information, information about obtaining consent from individuals that appear in your photos, and some

instruction on taking photos for a photovoice project. All consent forms will be signed at this time by participants who will be taking photos.

*Stage Two:* This three-week stage will give you time to take photos and collect consent forms from people in our photos. The researcher will then collect 15-20 of your chosen photos in preparation for stage three.

*Stage Three:* In stage three you will engage in a one-on-one interview with the principal investigator. Interviews will be conducted online through Zoom conference calls if COVID restrictions are in place or in-person at an agreed upon location if COVID restrictions are lifted and it is safe to meet in-person. Interview taking place over Zoom will be audio and video recorded through the Zoom recording feature. If permitted, in-person interviews will be audio recorded using a passcode protected iPod, owned by the principal investigator. A time of between 1 and 2 hours should be allotted for this process, the time will depend on how much you have to share about your experiences.

*Stage Four:* In stage four the researcher will compile your photos along with those of the group for a slide show presentation, this will include quotes from you and your peers from the one-on-one interviews. You will have a chance to view your photos and quotes and provide feedback to the researcher before it is distributed to the other participants. The slide show will then be sent to all participants, via email. You will not be required to but will have the option to send the researcher your feedback and questions about the data. Participation in this stage will require between 30 to 90 min of your time.

## WHAT IS EXPECTED OF ME?

If you consent to participate in this study, you will be expected to be available for all four stages of the photovoice project. Times for interviews will be scheduled around the best time for you. You will also be expected to take photos, collect consent forms for individuals who agree to appear in your photos or who's personal property or other identifying information appears in your photos, and discuss your experiences with the researcher.

## WHAT ARE THE RISKS?

The only risks associated with this project are stress and fatigue that you may feel as a result from changes to your routines, due to participation. There are risks inherent in the activity of climbing. Climbing has its inherent risks and the researcher takes no responsibly for risks you take as a climber. This project in no way requires you to take any risks that may result in injury to yourself and/or others. While attempting to take photos for this study you should not increase physical risk or harm to yourself or others.

## WILL I BENEFIT IF I TAKE PART?

There is no direct benefit to participating in this project. However, study findings will be used to inform organizations involved in rock climbing and may inform future organizational changes to policy, procedure, and programs directed at increasing women's climbing participation and enhancing women's experiences. Findings may also be used to inform the climbing community through community information session, climbing clinics, film festivals, outdoor education

programs, and adventure/eco tourisms programs. There may also be opportunity to inform climbing publications such as magazines, guidebooks, and even promotional advertising companies.

## DO I HAVE TO PARTICIPATE?

Your participation in the project is completely voluntary. You may decline to answer any questions addressed to you. You can end your participation in this study at any time, up until stage four of the research study, at this point in the study your photos will be disseminated to all participants in the form of a slideshow, and confidentiality can no longer be maintained. You will have the opportunity to view your photos, quotes, and research data before it is shared with the group. Withdrawing, allows you to have any data collected about you, or by you, withdrawn from the database and not included in the study. If you chose to withdraw, you can do so without any negative consequences.

## WILL MY INFORMATION BE KEPT PRIVATE?

Due to the nature of photovoice we cannot guarantee anonymity. If you, or individuals who agree to be in your photos, are depicted in those photos, anonymity in this project will not be possible. The research team and all participants will be required to maintain confidentiality at all times during this project. Information on confidentiality and respect of others will be discussed at the first meeting and consent forms will be signed at this time.

A list of participant names and contact information will be coded, this data will be kept for 5 years, and will be kept in a passcode protected computer, owned by the researcher's supervisor. These documents and consent forms will be stored separately from the data. All data collected will be stored in a locked filing cabinet or on password-protected computer in the researcher's and supervisor's office for a period of five years. All interview recordings will be held on a passcode protected electronic device and files will be transferred to the primary investigator's computer and erased from the electronic device. All Zoom interviews will be conducted using the secure personal meeting ID of the PI. The waiting room feature will only allow the individual being interviewed into the meeting, ensuring privacy. Zoom invitations will be sent out in a separate email from passcodes, to ensure privacy. All Zoom interviews will be video, and audio recorded using the Zoom recording feature.

## HOW WILL STUDY FINDINGS BE USED

Information collected will be used in reports, publications and presentations. Quotes and data outcomes will be assigned code names and your real name will not be used in any data publications. You may request a have a copy of all reports. However, as mentioned above we cannot guarantee complete anonymity if you chose to be in your photos. If you have any questions regarding your rights as a participant in this research please contact the Office of Research Ethics, University of Lethbridge, Phone: 403-3292747 or Email: research.services@uleth.ca

This research project has been approved by the Human Participant Research Committee, University of Lethbridge.

**CONTACT Information:** If you have further questions concerning matters related to this project or wish a summary of the findings, please contact Erin Davis at 403-360-8600 or email me at erin.davis@uleth.ca

**CONSENT FORM**

**TITLE: Exploring Women's Experiences and Gender Relations in Rock Climbing: A Participatory Action Research Photovoice Study**

**PRINCIPAL INVESTIGATOR:**
Erin Davis, BASc (Honours), LPN
4401 University Drive
Lethbridge, AB T1K 3M4
erin.davis@uleth.ca
403-360-8600

| | | | | |
|---|---|---|---|---|
| Do you understand that you have been asked to be in a research project? | ☐ | Yes | ☐ | No |
| Have you read and received a copy of the attached Information Letter? | ☐ | Yes | ☐ | No |
| Do you understand the benefits and risks involved in taking part in this project? | ☐ | Yes | ☐ | No |
| Have you had an opportunity to ask questions and discuss this project? | ☐ | Yes | ☐ | No |
| Do you understand that you are free to refuse to participate or withdraw from the project at any time?  You do not have to give a reason | ☐ | Yes | ☐ | No |
| Has the issue of confidentiality been explained to you? | ☐ | Yes | ☐ | No |
| Do you understand who will have access to the information you give? | ☐ | Yes | ☐ | No |

This project was explained to me by:

I agree to take part in this project.

_____     _____     _____
Signature of Designate for Research Participant          Date                          Witness

_____                        _____
Printed Name                                            Printed Name

I believe that the person signing this form understands what is involved in the project and voluntarily agrees to participate.

_____     _____
Signature of Investigator or Designee          Date

# Appendix G: Information Letter and Informed Consent to Appear in Photographs

University of Lethbridge
4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4

**TITLE: Exploring Women's Experiences and Gender Relations in Rock Climbing: A Participatory Action Research Photovoice Study**

**Principle Investigator:** Erin Davis, University of Lethbridge, **Email**: erin.davis@uleth.ca, **Phone**: (403)360-8600
**Supervisor**: Dr. Tracy Oosterbroek, University of Lethbridge, **Email**: tracy.oosterbroek@uleth,**Phone**: 403.393.8924

Dear Participant:

You are being invited to appear in a photograph that will be used in a master's thesis project exploring gender experiences of individuals who identify as women and rock climb.

## *Purpose*
The purpose of the study is to gain a greater understanding about women's experiences with gender relations in the rock climbing communities. This research is utilizing a photovoice method, which requires participants to take photos and narrate their experiences. You are being asked to participate in this study by:

1. Consenting to be photographed, and
2. Consenting to allow us to use the photographs in which you appear for the sole purposes of the research study, this includes public dissemination of photos with quotes from the photographer in academic presentations and journals, and magazines that might be red by other members of the climbing community

## *Benefits*
There are no direct benefits to participating in this study. However, study findings will be used to inform organizations involved in rock climbing and may inform future organizational changes to policy, procedure, and programs directed at increasing women's climbing participation and enhancing women's experiences.

## *Risks*
There are no foreseeable risks, physical or psychological, to your participation in the study. If at any time, up until the time that photos are shared publicly through publications and presentations, you have the right to withdraw from the study and are free to do so without any negative consequences. If you chose to withdraw all photographs that you appear in will be removed from the data, study findings, and will not be presented in study presentations. To withdraw your photos from this study you will need to contact either Erin Davis or Dr. Tracy Oosterbroek, contact information provided at the top of this letter.

## *Assurance that Individuals Appearing in Photos will not be Placed in False Light*
The study participant(s) and researcher(s) assure that all individuals consenting to be in photographs will not be misrepresent through photos, quotes, or interpretations of photos. All participants and researchers working on this project have agreed to uphold all Photovoice ethical guidelines that ensure no individuals appearing in photographs will be subject to their thoughts and/or feelings being misrepresented by the photographs, the photographer's narrative of those photos, or by the interpretation of research data, by the researchers.

## *Confidentiality*
All sources of data will be kept confidential. Anonymity, however, cannot be guaranteed due to the nature of the study, whereby participants may be the subjects of photographs.

I consent to participate in the study entitled *Exploring Women's Experiences and Gender Relations in Rock Climbing: A Participatory Action Research Photovoice Study*. This signed consent signifies my:

1. permission to be photographed, and
2. consent for the use of the photographs that you appear for the sole purposes of the research study.


_____          _____

**Signature of Participant**                                                    Date



_____          _____

**Signature of Research Participant**                                      Date