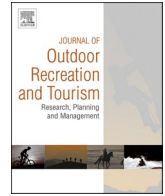


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Social marketing and outdoor recreational advocacy groups: Lessons from a rock climbing campaign

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ABSTRACT

Social marketing is the application of classic marketing techniques to promote socially beneficial behavior. This paper examines the opportunities for applying social marketing by outdoor recreation advocacy groups. Highlighting a successful campaign to promote environmental behavior among rock climbers, findings from this research are examined to demonstrate applications of social marketing to support similar organizations. In the examined campaign, a sample of rock climbers were surveyed. Cluster analysis revealed three distinct segments with significantly different environmental attitudes and past commitments to environmental behaviors. The cluster labeled 'The Project' showed a high level of willingness to change behavior and need for intervention. A focus group of individuals from this cluster then answered questions identifying their barriers to responsible behavior, motivations for acting more sustainably, and ideas for encouraging others to participate in a general campaign. Results were presented to an environmental non-profit organization, which aims to promote conservation by, and for, rock climbers. Findings assisted their campaign targeting entry level climbers and indoor facilities. Specifically, co-creation with the recreational and advocacy groups, framing interventions within the 4Ps for project planning, and leveraging public commitments significantly improved efforts. The successful campaign is examined to describe how social marketing may be leveraged by similar advocacy groups. Additional ideas for intervention and areas for future research are also discussed.

Management implications

- Outdoor recreational advocacy groups to mitigate user conflicts and promote conservation
- Social marketing methods in promoting advocacy group efforts, including public commitments
- Co-creation as an effective tool for engaging outdoor users and advocacy groups
- Co-created interventions using the Price, Promotion, Place, and Product framework
- Potentially scalable opportunities to target entry level climbers and indoor facilities

1. Introduction

Outdoor recreation advocacy groups operate throughout the world and are diverse in their promotion of activities. In the United States, where this research was conducted, they are primarily non-profit entities which support access to public and private lands, legislation

aiming to provide accessibility and protection of such lands, democratic voice for their user bases in the public sphere, and engagement in civic efforts with the communities of users they represent. These organizations vary greatly in scope, size, and mission. Examples of US based advocacy groups include Protect Our Winters, Outdoor Afro, and Ducks Unlimited. To promote their efforts, many of these organizations use marketing techniques to encourage membership, increase donations, sell products and/or services, raise awareness of current events/issues, and/or to increase brand recognition. For most conservation oriented organizations, resources are limited (Ferraro & Pattanayak, 2006) and it is therefore important to understand how best to leverage, and maximize, all tools that the field of marketing have to offer these organizations.

Social marketing may be effective in supporting these groups. The field of social marketing has been described by Dann (2010) as the "the adaptation and adoption of commercial marketing activities, institutions and processes as a means to induce behaviour change in a targeted audience on a temporary or permanent basis to achieve a social goal" (p. 151). This concept was born from the question by Weibe (1952), "Why

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can't we sell brotherhood like we sell soup." While progress has been made to outline the benchmarks that define a social marketing campaign, little consensus on the key points that define the social marketing process exists. This is evidenced by variation within the literature (e.g. French, Blair-Stevens, McVey, & Merritt, 2010; Corner & Randall, 2011; Truong & Hall, 2013; Shaw, Barr & Wooler, 2013; Wettstein & Suggs, 2016). However, the commonalities between these works have been described by Borden, Coles, and Shaw (2017) and Borden, Cohen and Gooderham (2018), and include: Define behavioral goal(s); segment the audience; use a marketing mix; consider the importance of the exchange; and incorporate balance between competing factors for behavior.

Aspects of social marketing have targeted outdoor recreational users (i.e. skiers, boaters, birders, walkers, etc.) and Lefebvre (2013) and Andreasen and Kotler (2007) have explained opportunities for non-profit organizations to utilize this tool. However, the authors are unaware of research into the use social marketing efforts to specifically target outdoor recreational users nor its full application to supporting outdoor recreational advocacy groups. To assist similar advocacy groups in applying social marketing efforts, the current research aimed to examine how social marketing efforts may increase brand recognition, participation in conservation actions, and other goals of similar advocacy group.

2. Literature

2.1. Social marketing

Aspects of social marketing have been leveraged extensively within the tourism industry (Hall, 2014). Specific areas of promotion have included water (Gössling, Hall & Scott, 2015; Borden, Coles, & Shaw, 2017), travel (Shaw et al., 2013), electricity (Gössling, Hall & Scott, 2015), recycling (Hall, 2014), and purchasing of carbon offsets (Barr, Shaw, & Coles, 2011; Gössling & Buckley, 2016). Several important contemporary issues arising from the literature in this area have emerged, such as, co-creation, effective use of the marketing mix, upstream versus downstream targeting, and demarketing.

The concept of co-creation has been explored in a number of social marketing examples. Co-creation is the process of customers and producers determining value together where customers are engaged at all levels of value proposition and market transaction (Vargo, Maglio, & Akaka, 2008; Chathoth et al., 2014). Value, co-created with customers, relies on the belief that customers are not passive but active members in creating products and services (Desai, 2008). This concept has been demonstrated as a useful effort to engage target segments in a social marketing campaign promoting physical activity among teens (Desai, 2008) and alternative forms of transportation by tourists (Shaw et al., 2013). Furthering these efforts, Warren, Becken, and Coghlan (2017) applied co-creation to develop persuasive communication to engage tourism accommodation guests in resource savings. Together these examples demonstrate that co-creation can be applied effectively to social marketing campaigns and to varying behaviors. Research investigating the use of the marketing mix in social marketing is also an area of interest to the current research.

The term 'marketing mix' was coined by Neil Borden in his 1953 American Marketing Association presidential address (Borden, 1964; Gordon, 2012), where he described how marketers used a variety of methods, much like a cook creating food. Later introducing the marketing mix ingredients, (McCarthy, 1960), described them as the 4Ps (Price, Product, Place and Promotion). Today, while some have argued the 4Ps are not well suited for social marketing efforts (Peattie & Peattie, 2003); Gordon, 2012), the 4Ps concept is still widely used in classic marketing (Grönroos, 1994) and social marketing efforts (Hastings, 2007). McKenzie-Mohr, Lee, Shultz, and Kotler (2012) identify social marketers use a variety of strategies within the framework of the 4Ps to promote environmentally responsible behaviors, such as, but not limited

to: commitments, prompts, norms, social diffusion (adopting behaviors from those around us), goods and services, communication, incentives/disincentives, and convenience.

Imperative to the current research, the strategy of commitments asks the target audience to pledge they will follow through with a desired behavior. Examples may include wearing a symbol (i.e. a button, ribbon, or color), verbally pledging, or signing a petition to act in a desired manner (McKenzie-Mohr et al., 2012). Making commitments voluntary and public, able to be seen by others, has been shown to increase their effectiveness (Pallak, Cook, & Sullivan, 1980). This has been demonstrated by Baca-Motes, Brown, Gneely, Kennan, and Nelson (2013) whom used public commitments to significantly increase guest reuse of towels in hotels. Ahluwalia, Unnava, and Burnkrant (2001), and Halverson and Pallak (1978), showed that the level of public commitment is a function of how public the commitment is made. Halverson and Pallak (1978) further explain that public commitment and ego-involvement, how aroused one's given stance is in relevant contexts, drive increase salience of one's attitudes in later contexts, thus increasing the likelihood of actions consistent with those attitudes.

Another important area of recent concern is whether to target individuals or environmental structures in which they operate (Andreasen, 2012; Borden, Cohn, & Gooderham, 2018; Lee & Kotler, 2011). The metaphor of a river has been evoked to understand this issue as downstream (e.g. targeting individuals that perform the behavior directly), midstream (e.g. targeting individuals that influence the downstream individuals) and upstream (e.g. targeting structural environmental issues influencing those actors) (Hastings, 2007). Andreasen (2006) identifies that downstream efforts are most prolific, though many scholars have argued for the need to target upstream with the benefit of increasing impacts (Borden, Shaw, & Coles, 2017; French et al., 2010; Hall, 2014). Additionally, Borden, Cohen and Gooderham (2018) have identified a lack of examples of upstream efforts and called for further research in this area to aid stakeholders in understanding opportunities and barriers to such efforts.

In 1971, Kotler and Levy first defined demarketing as discouraging customers, or segments of customers, through conventional marketing techniques. Lefebvre and Kotler (2011) identify demarketing as a primary tool of social marketing. Public lands managers have begun to use demarketing to discourage visitation to certain areas by recreational users (i.e. Beeton & Benfield, 2002; Wearing, Archer, & Beeton, 2007; Armstrong & Kern, 2011). More recently, Weiler, Moyle, Scherrer, and Hill (2018) have applied the 4Ps framework to organize specific demarketing interventions in this area, making recommendations such as modifying the product, permitting certain activities only under supervision, creating and promoting alternative experiences at other sites, introducing or increasing pricing, and promoting alternative uses of the site. Demarketing represents one tool, of many, within the social marketing arena which may have further applications in this context.

2.2. Rock climbing management

Research on rock climbing from a conservation perspective has primarily focused on managing climbing areas for economic gain, user satisfaction, and conflict resolution. For example, Maples, Sharp, Clark, Gerlaugh, and Gillespie (2017) found rock climbing in the Red River George, KY, USA, is a viable alternative source of sustainable economic activity in place of a shrinking coal and manufacturing based economy. Adding to this, Grijalva, Berrens, Bohara, Jakus, and Shaw (2002) described how displacing rock climbing from wilderness areas creates a substantial loss in potential economic spending. Additionally, Jones, Yamamoto, and Kobayashi (2016) have applied the marketing technique of segmentation to understand the willingness to pay of mountain climbers on Mount Fuji, Japan.

Regarding user satisfaction, Kulczycki (2014) built upon work by De Léséleuc (2004), Cailly (2006) and Steele (2006) to investigate the place meanings of climbers, aiming to better understand their values of

climbing areas. [Stuessy, Harding, and Anderson \(2009\)](#) build upon these findings, identifying that rock climbers have varied environmental ethical perspectives. These perspectives varied between indoor and outdoor climbers and had three main factors: a partially non-anthropocentric utilitarian view, a non-anthropocentric ethic rejecting human supremacy, and a religiously inspired perspective.

Other researchers have concentrated on the product needs of climbers. For example, applying mixed methods of surveying and focus groups, [Michaelson, Teel, and Chattaraman \(2018\)](#) identify desired attributes of rock climbing pants. Identifying that climbers prioritize functionality, durability and then cost. Finally, addressing conflict resolution, [Schuster, Thompson and Hammit \(2001\)](#) and [Bogardus \(2012\)](#) describes some of the conflicts among climbing groups to better enable managers to mitigate and build policy towards better user satisfaction. Specifically, they find that climbers have varying views of impacting areas with permanent metal fixtures, referred to as 'bolts', and identify ways to reduce conflict among these factions.

Social marketing advocates have empowered organizations aiming to create socially beneficial behavior through providing them with marketing audits, best practices, and processes for application ([Lefebvre, 2013](#)). However, while certain aspects of social marketing have been applied to conservation and climbing management efforts, as explored in the literature above, the authors are not aware of efforts applied specifically to outdoor recreation advocacy groups nor efforts which apply all five benchmarks of social marketing to rock climbers.

Research aiming to fill this gap was conducted and is presented below. In collaboration with the Access Fund, a non-profit rock climbing advocacy group, researchers critically and empirically examine the process and outcomes of a co-created social marketing campaign, Western Rising! In doing so, this paper contributes to a growing body of literature that applies social marketing techniques to inform outdoor recreation issues, with implications for researchers and practitioners in the arenas of management and advocacy.

3. Methodological concept

Research was conducted in four stages (see [Fig. 1](#)) and through mixed methods. Stage 1 engaged stakeholders in discussions to co-create future efforts and ensure research goals and objectives aligned with their needs. In Stage 2, patrons of a climbing gym were surveyed to understand the target audience and their awareness of the advocacy group and current behaviors. To understand opportunities for interventions, aiming to increase awareness and behavior, a focus group in Stage 3, with members of the target audience identified in the previous stage, was conducted. Interventions co-created with both this target audience and the advocacy group were then implemented in a social marketing campaign at the climbing gym. A subsequent survey, Stage 4, was conducted to measure outcomes. This four stage process of mixed methods

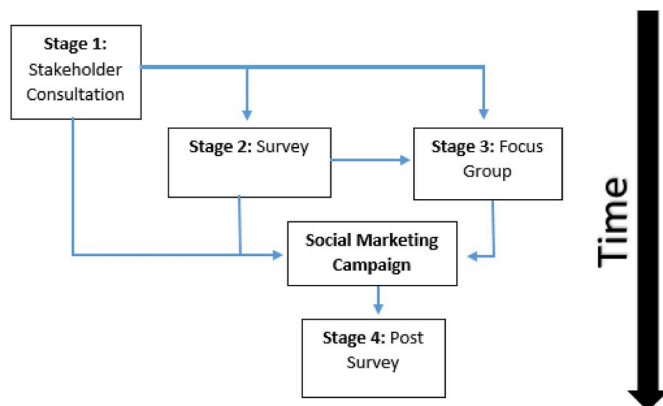


Fig. 1. Flow of information between stages of the research.

was selected as [Carins, Rundle-Thiele, and Fidock \(2016\)](#) identify social marketing campaigns relying solely on survey data may be more prone to the well-documented attitude–behavior gap (see [Kollmuss & Agyeman, 2002](#)) and social desirability bias (see [Kaiser, 1998](#)). These research stages are explored in greater depth below, presenting both methods and results and discussion sections, to better aid future researchers and professionals in similar efforts. The Institutional Review Board at Western Colorado University approved the methods conducted in this research (HRC 2017-02-03R90).

4. Stage 1: Stakeholder consultation

4.1. Methods

The first research stage was the establishment of research objectives in collaboration with the Access Fund, a non-profit advocacy group working to keep U.S. climbing areas open and lessen user created impacts. Meetings were held both in person and through online meeting platforms. This flexibility in location allowed for a greater number of Access Fund employees to participate (n=5). Employees represented a diversity of positions within the organization (marketing, community outreach, and finances) which ensured a greater breadth of understanding of assets and needs within the organization.

During the consultation, the Access Fund members were asked to identify areas of need, opportunities for expansion, and current ideas and resources to reach those goals. These questions were sent prior to the meeting to ensure participants could clearly articulate their ideas. During the consultation, probing questions from the researchers aimed to better understand opinions. The group was consistently asked if they were in consensus or had conflicting opinions once the probing questions had been presented. The first meeting took approximately 4 h and a subsequent meeting with review of their previous ideas lasted for 2 h.

4.2. Results and discussion

Participating employees of the Access Fund identified areas of need, opportunities for expansion, and current ideas and resources to reach those goals. These objectives were then used to inform subsequent stages of the methods. To organize their ideas the primary purpose and objectives were established, as follows:

The primary purpose: Determine how a social marketing campaign may support protecting America's climbing areas and access among younger climbers and those using indoor facilities.

- Objective 1: Understand opportunities for increasing membership, signatures of their commitment to responsible behavior (known as *The Climber's Pact*, see [Appendix A](#)), participation in cleanup/trail building events, and solicit ideas for further engagement.
- Objective 2: Establish co-created interventions for incorporation into the social marketing campaign.
- Objective 3: Examine the impacts of some of these co-created interventions.

5. Stage 2: Survey

5.1. Methods

To accomplish the first objective, identified in Stage 1 of this research, data was collected at a university climbing gym, which serves as the primary indoor climbing facility for a rural town with a population of roughly 8000 individuals in Colorado, USA. Due to the size of the town and nature of the climbing gym, over 90% of users are students at the university. Prior to the current research, the advocacy group had supported events at the university and posters were displayed throughout the gym.

Next, a survey protocol was developed and administered to a random

selection of gym climbers. Upon entering the gym, climbers were assigned a number and a random number generator was used to select participants. This was done over a 1-month long period. Participants only completed a survey once to avoid duplication. For consistency, patrons were surveyed during all business hours. A pilot survey (n= 20) was completed prior to the primary data collection effort to ensure questions clearly conveyed the researchers' intentions.

The instrument measured demographic information (gender identification and age), stated frequency (both amount of years total climbing and average climbing events per week) and type of climbing, environmental beliefs (using an abbreviated five question form of the New Environmental Paradigm as explained by Dunlap, 2008), drivers of environmental concern (using the structure of environmental concerns, Schultz, 2001), local (defined here as within the surveyed county) annual financial spending on climbing trips and gear, awareness and current membership of the advocacy group (both binary), and stated barriers to supporting the advocacy group.

The use of the abbreviated version of the New Environmental Paradigm (NEP) score was justified as it has been used in other similar research (Park, Kim, & McCleary, 2014) to reduce survey time where one question from each factor (five in total) was selected. There is some debate over if the NEP scale is unidimensional rather than multidimensional, wherein the number of items and their association to a factor is less relevant (Dunlap, 2008). As the authors agree with Dunlap and others that have found it to be multidimensional, it was therefore justified to use the five questions herein. Items for the question concerning barriers to supporting the advocacy group were created based on feedback from the advocacy group itself which had antidotal stories concerning past membership efforts. Membership to the Access Fund was used as a proxy for environmental behavior.

5.2. Results and discussion

A total of 196 usable surveys were completed after eliminating those with missing data points. IBM SPSS Statistics for Windows, Version 22.0 (IBM Corp. Released, 2013) was used for analysis. Data was generally linear and nonparametric tests were determined to be most appropriate due to the nature of the data and to remain consistent with similar previous social marketing studies (see Borden et al., 2018; Dolnicar & Grün, 2009). Adequate internal consistency was reported for all survey measures, including NEP (0.71) and Value Basis (0.88; 0.89; 0.84) with a Cronbach's Alpha score above 0.70 as recommended by Ferrer, Hamagami, and McArdle (2004).

French et al. (2010) identify that segmenting the audience is important in social marketing campaigns to better understand and then effectively target specific groups. Cluster analysis is a well-established marketing research technique (Hair, Black, Babin, & Anderson, 2010; Mazzocchi, 2008) and commonly applied in tourism studies (see Barr et al., 2011; Borden, Coles, et al., 2017; Coles, Zschiegner, & Dinan, 2014). The technique places individuals together into "heterogeneous groups consisting of homogenous elements" (Franke, Resinger, & Hope, 2009, p. 273). This technique was chosen to further accomplish the first research objective. A ratio of 70:1 sample size to number of clustering variables was used as recommended by Dolnicar, Grün, Leish, and Schmidt (2013).

First, exploratory cluster analysis was preformed to determine final protocol as recommended by Hair et al. (2010). Through trial and error and recommendations by Dolnicar, Grün, Leisch, and Schmidt (2013), two variables were ultimately selected: NEP score (environmental belief) and membership to the Access Fund (as a proxy for environmental behavior). The decision to cluster around belief and behavior was justified as it reduces the potential of the attitude-behavior gap, similar to the efforts by Shaw, Barr, and Wooler (2013) and Dolnicar and Grün (2009) who investigated tourists' willingness to adopt environmental behaviors. As recommended by Hair et al. (2010), a two-step procedure was applied in the final analysis where hierarchal cluster

analysis determined the number of clusters and non-hierarchal cluster analysis (K-means clustering) placed individuals within the amount of clusters previously determined. Hair et al. (2010) and Mazzocchi (2008) identify that this two-step procedure ensures clusters with greater parity in membership. Ward's method and Squared Euclidean distance was used during hierarchal clustering as applied in similar research (i.e., Barr, Shaw, Coles, & Prillwitz, 2010; Coles et al., 2014; Borden, Coles, et al., 2017). To follow recommendations by Mazzocchi (2008), the dendrogram and percentage change in heterogeneity were used to determine the number of clusters. Percentage change in heterogeneity revealed clusters were stable as defined by Hair et al. (2010).

The survey showed a low rate (13.78%) of current Access Fund membership within the sample. Of those non-members, 50.2% reported they did not know what the Access Fund is. Additionally, participants reported a minimal amount of local annual spending on climbing equipment (\$154.54) and travel for the sport were reported (\$152.44). However, of those 196 individuals, 146 signed *The Climber's Pact* upon being informed of the opportunity (a rate of 74.45%). Additionally, signing of the commitment significantly correlated with higher NEP score ($p < 0.05$). However, interestingly, no demographic information was significantly correlated to belief nor behaviors.

Three stable and consistent clusters were identified during cluster analysis. Table 1 represents the demographic, belief (NEP and value basis), and behavioral data for each cluster. Again, no demographic data was significantly different between clusters. However, NEP score, value basis, and membership were all significantly different between clusters. 'The Project' cluster showed an NEP and membership score between those of the 'Sending Saints' and 'Distracted Belayers.' For value basis, 'The Project' reported the highest motivation to act responsibly based on their highly reported values towards 'future generations,' 'animals,' and then 'children,' in descending order of importance.

Opportunities for promoting further engagement are presented in Table 2. Significant differences in awareness of the advocacy groups were reported. Additionally, while Instagram as an avenue for connecting with groups was significant, the communication channel was still rated lowly, while posters and email were both the highest reported channel for all three clusters.

Finally, after being asked if they would sign *The Climber's Pact*, significant differences were observed between clusters. Specifically, the cluster 'Sending Saints' had the highest signature rate and the 'Distracted Belayers' had the lowest. Examined together, the data describes three very different climbing groups with regard to their beliefs and behavior. It was justified to target the cluster 'The Project' because the data indicates a moderate willingness (NEP score 18.36) to change their behavior and a high need with a low rate of membership (14%), which, with some level of intervention, might raise to that of the highest performing cluster. Additionally, they were the largest cluster and showed a moderate level of willingness to participate (rate of signature of *The Climber's Pact* of 71.9%).

6. Stage 3: Focus group

6.1. Methods

While surveys provide a breath of information, focus groups have been used to ensure depth in understanding the target audience in social marketing campaigns (see Borden, Coles, et al., 2017). Focus groups allow for exploring emergent ideas, tackling critical topics (Bloor, Frankland, Thomas, & Robson, 2001), and establishing the reasons why people think and act in particular ways (Barbour, 2008). Here, a focus group was held with 15 individuals whom had previously been surveyed and fell into the target audience, the cluster named 'The Project.' Thirty participants were originally selected at random from the cluster and invited to the focus group. Their demographics were consistent with those of the averages for their cluster with the group consisting of 9 males and 6 females, an average age of 20.53 years old, and a focus on

Table 1
Demographic, belief, and behavioral data for three clusters identified during cluster analysis.

Characteristics	The Project	Sending Saints	Distracted Belayers
N	121	48	27
Gender Identification			
Male	66.1%	54.2%	66.7%
Female	32.2%	45.8%	29.6%
Gender nonconforming	0.8%	0%	0%
Prefer not to answer	0.8%	0%	0%
Average Age	23.64(23.75(24.22(
SD	4.05)	6.12)	2.89)
Average Number of Years Climbing	3.51	3.45	3.28
Frequency of Climbing			
Average ^c	3.31(3.28(2.78(
SD	0.55)	0.75)	0.46)
A few times a year	8.3%	9.2%	22.2%
Monthly	9.9%	9.2%	14.8%
Weekly	24.8%	26%	25.9%
More than once a week	57%	55.6%	37%
Type of Climbing			
Indoor	100%	100%	100%
Outdoor: Sport climbing	60.3%	66.7%	40.7%
Outdoor: Traditional Climbing	50.4%	39.6%	33.3%
Outdoor: Bouldering	34.7%	41.7%	37%
Outdoor: Top roping	52.1%	52.1%	33.3%
Outdoor: Ice climbing	19.8%	21.4%	11.1%
Average NEP Score ^{b,c,d}	18.36(22.08(13.48(
SD	2.08)	3.18)	2.34)
Value Basis ^b			
Egotistical	5.57	5.62	5.22
Biospheric	6.08	6.14	5.38
Altruistic	6.08	5.86	5.72
Plants	6.06	6.35	5.3
Me	5.48	5.33	5.33
People in my Community	5.73	5.6	5.48
Marine life	5.98	6.35	5.59
My lifestyle	5.33	5.65	5.11
All people	6.04	5.65	5.67
Birds	5.93	6.25	5.33
My health	5.76	5.71	5.11
Children	6.11	5.73	5.7
Animals	6.35	6.65	5.3
My future	5.78	5.79	5.33
Future generations	6.38	6.44	6.04
Current Access Fund Members ^b	14%	20.8%	0%

^a Calculated by assigning values to each category (e.g. 1 for 'A few times a year' and 4 for 'More than once a week').

^b Indicates a significant difference between clusters using a Chi-Square, Kruskal-Wallis H Test or Mann-Whitney U test (p < 0.05).

^c Calculated by assigning values to each response.

^d An abbreviated five point scale was used.

different climbing frequencies and types. Table 3 presents selected characteristics of this group with numbers representing each individual to maintain anonymity.

Discussions were guided by a set of questions designed through the five benchmarks of a social marketing campaign described previously and the project objectives established in the first stage of this research. More specifically, participants were asked about their motivations and barriers to the behavior of signing *The Climber's Pact*, becoming members of the organization, and purchasing goods from them. Questions regarding why participants enjoyed and began climbing were asked to better understand their connection to the sport. Regarding the marketing mix, participants were asked about their ideas for new products or services, how best to promote the target behaviors, price sensitivity, and where and how best to promote to them. Previously solicited information was used to understand the exchange and competing behaviors. Finally, ideas for interventions were co-created with this group to

Table 2
Opportunities for encouraging membership, participation in clean-up events, and communication channels for each cluster.

Characteristics	The Project	Sending Saints	Distracted Belayers
N	121	48	27
If Not a Member, Why?			
Don't know what it is ^b	53.7%	37.5%	66.7%
Cost is too high	13.5%	16.3%	3.7%
It's not convenient	12.8%	12.9%	0%
Not good value for money	0%	0%	0%
Forgot this year	20%	33.3%	29.6%
Don't support their efforts	0%	0%	0%
Factors Most Encouraging Participation in Clean-up Events			
Climbing at event	78%	92%	59%
Friends attending event	74%	77%	70%
Possibly meet new People	66%	65%	48%
Free Food	76%	60%	67%
Free climbing gifts	77%	65%	44%
Transportation was Provided	38%	40%	22%
How to Best Communicate			
Climbing App	12%	15%	4%
Poster	72%	77%	70%
Email	61%	69%	63%
Mail	9%	13%	0%
Facebook	49%	44%	41%
Friends (word of mouth)	55%	52%	48%
Instagram ^b	40%	52%	19%
Signed Access Fund Climber's Pact ^b	71.9%	73%	55.6%

^b Indicates a significant difference between clusters using a Kruskal-Wallis H Test or Mann-Whitney U test (p < 0.05).

Table 3
Selected characteristics of the focus group participants.

Participant label	Gender identification	Age	Number of years climbing	Frequency of climbing ^a	Type of climbing ^b
P1	M	19	7	3	I, OTC, OB
P2	F	20	1	2	I, OTR
P3	F	25	6	2	I, OSC, OB
P4	F	23	1	3	I, OB
P5	M	23	4	4	I, OTR
P6	M	24	3	3	I, OSC, OB
P7	M	20	3	4	I, OSC, OB
P8	F	19	3	4	I, OSC, OB
P9	M	19	3	1	I, OSC, OTC
P10	M	20	1	2	I, OTR
P11	F	19	1	3	I, OTC
P12	M	20	2	2	I, OTR, OSC, OB
P13	M	23	3	2	I, OB
P14	F	24	3	3	I, OSC, OTC
P15	M	18	1	2	I, OTR

^a 1 represents 'a few times a year' and 4 is 'more than once a week.'

^b I= Indoor climbing; OSC= Outdoor sport climbing; OTC= Outdoor traditional climbing; OB= Outdoor bouldering; OTR= Outdoor top roping; OIC= Outdoor ice climbing.

promote brand recognition and signing of *The Climbers Pact*.

The event was recorded with participants being informed of anonymity. Research was held at a local university and was voluntary. Participants answered questions for roughly 2 h. Recordings were transcribed by a researcher and coded for thematic understanding. Major themes within and across the responses were analyzed independently by researchers and results were then compared to reduce conformation bias. An inductive approach to creating themes, driven by patterns

emerging in the data, and not pre-determined by the researchers (deductive), was applied. This approach is recommended by Neuendorf (2016) as inductive approaches aim to lessen researcher bias.

6.2. Results and discussion

Members from the cluster 'The Project,' reported on several important themes including barriers to becoming members, joining events, and signing *The Climber's Pact*. Of the 15 participants, only 47% knew of the Access Fund previously, which was slightly above the average for this cluster (45.8%). Another barrier identified was social constraints to feeling welcomed into the sport. For example, two participants summed it up with:

I'm pretty new to climbing, so I am very intimidated by the gear. And there are all of these big muscled people, it is pretty intimidating (P11).

I feel like the number one reason people don't go climb is fear of an elitist culture, I experienced it. For me, like I would go drive up to my old gym and sit in the parking lot for an hour and just wait cause if you boulder under like V3 they'd just destroy you (P8).

The group also identified the cost of membership as a barrier. With an average age of just over 20 years old, and all participants attending University, the majority of participants in the group stated they did not have the financial means to afford the annual membership fee. Others commented on opportunity costs as one participant put it, "Yeah, I think I donated the minimum amount, but with that you could buy a piece of climbing gear, you know?" (P1).

When exploring *The Climber's Pact* and becoming a member, one theme that emerged was the idea of mentors. These mentors were explained to be older and having a strong environmental ethic to impart on the younger climber. One participant explained:

When you're new into climbing and you have these people teaching you, you have this whole halo effect. If they're jamming out, they're really loud or not being very respectful then you just get used to not being respectful and so I think that's definitely something to having other people teach other people how to do it properly or follow all these guidelines naturally (P9).

With regard to *The Climber's Pact*, several members of the group identified barriers to following the specific actions within the commitment. Specifically, they identified reducing group sizes, lowering noise, and removing chalk marks as difficult behaviors to observe. Interestingly, this depended upon the location of the climbing area. For example, in areas close to the road these were seen as more difficult than in high alpine environments. This highlights that place meaning as described by Kulczyk (2014) can change how climbers view impacts upon the landscape and should be considered within management efforts.

When exploring the marketing mix, participants agreed that stickers with the organization's logo would be desirable and may increase brand recognition. Additionally, price, again, was a commonly discussed theme. Participants identified a \$25 price point for membership and \$35 for a T-Shirt with membership. This idea of bundling products was mentioned several times. For example participants offered:

Maybe they could give a climbing movie and membership together, so you can see a film with your fiends while becoming a member (P7).

I really like the idea of a membership awards program. Can you imagine having like a mini pro deal thing for members of the Access Fund? The Access Fund could even up the price, if you could get like 5% off a popular company (P8).

However, critique of the organization's website were also offered.

Specifically, the desire for more information on where donations might be applied, with one participant stating their willingness to join the group would rise, "If we knew we are getting bolts, so the money is actually going towards something we are getting in our community, I would also like to ensure my money goes to what I want if possible" (P2).

To determine potential areas for promotion, participants were asked what words they associated with the organization. A word count indicated that these individuals primarily identified the organization with the terms, in order of most commonly stated: support (10), policy (9), public lands (9), bolt replacement (7), and accessibility (6). These terms could be used in all areas of promotion, including greater transparency and highlighting of what their contributions could deliver.

Finally, interventions to engage the group were co-created (see Fig. 2) and organized using the 4Ps framework as seen in similar work by Weiler et al. (2018). These ideas were then presented to the advocacy group whom adapted and selected interventions which were supported by theory reviewed in the literature review of this paper.

7. Social marketing campaign: *Western Rising!*

After collecting and analyzing data, in collaboration with the partnering outdoor advocacy group a campaign called *Western Rising!* was co-created. First, a review of the opportunities for intervention, identified during Stage 3 of the methods (see Fig. 2) was built upon by the advocacy group, and then prioritized. Some employees of the climbing gym (n=2) were also consulted to ensure the interventions would be implemented effectively into the facility's operations. Ultimately, stakeholders decided to narrow the focus of the campaign while also applying a mix of interventions as recommended by Hall (2014). Specifically, the campaign targeted 'The Project' aiming to promote brand recognition and signing of *The Climbers Pact*. Leveraging public commitments to promote social pressure and mentorships was selected towards these goals, as recommended by the focus group. To achieve this, a poster with *The Climber's Pact* was placed in a visible area in the climbing gym. Patrons were encouraged to sign the poster to show their support. The organization's stickers were freely provided to spread brand awareness. Finally, the concept of a branded belay certification card was adopted. Here individuals were asked during their certification process, which allows them to climb on ropes at the climbing gym, if they would like to sign *The Climber's Pact*. If they opted to sign *The Climber's Pact*, they received a brightly colored card with the pact commitments and the Access Fund logo. This card was then attached to their climbing harness, making their commitment public for others to see.

8. Stage 4: Post survey

8.1. Methods

Finally, after *Western Rising!* was promoted for one month, a survey was administered to randomly selected climbers entering the gym over another 1-month long period. Patrons that had previously completed the survey were not eligible to complete it during this stage to better understand the effectiveness of interventions. For consistency, patrons were surveyed during all business hours. The survey instrument was the same as the first questionnaire. A total of 203 usable surveys were completed after eliminating those with missing data points.

8.2. Results and discussion

In the subsequent survey a significant increase ($p=0.01$) in awareness of the organization (rising to 72%) was reported. Additionally, a 90.1% signature rate was observed for signing *The Climber's Pact*, a significant increase of 15.65% from the previous 71.9% rate recorded during the first stage of surveys ($p=0.00$). In total, the resulting efforts delivered over 200 signatures of the commitment. As seen in the first

<p>Product</p> <ul style="list-style-type: none"> • Presentations to reduce social constraints: skills clinics, gear demonstrations, slide shows, and movies • Branded products not already created (<i>i.e.</i> t-shirt ideas, climbing holds, and branded climbing gear) • Changes to <i>The Climber's Pact</i> 	<p>Price</p> <ul style="list-style-type: none"> • Student membership fees (price point of \$25) • Greater transparency of donations • Democratic donations • Rewards programs (discounts on store items increasing over time) • Bundling of products with membership fees
<p>Place</p> <ul style="list-style-type: none"> • Multiple social media platforms (consider adding YouTube, Twitter, and Snapchat) • Continue to leverage promotion through posters and stickers • Provide information and logo on prominent websites which provide route and trail information, visitor centers, interpretive signs, guidebooks, and local climbing organization's social media sites 	<p>Promotion</p> <ul style="list-style-type: none"> • Competition of amount of <i>The Climber's Pact</i> signatures acquired • Make signatures public on posters displaying <i>The Climber's Pact</i> • Public commitment and organization logo on belay cards tied to a climber's harness • Instagram 'University Takeover' as seen with professional athletes

Fig. 2. Recommendations co-created with focus group participants and the advocacy group, organized through the 4Ps framework.

survey event (Stage 2), again, no other significant correlations were observed between behaviors, beliefs, and other variables. These result suggest the interventions were effective in reaching the research goal and objectives.

9. General discussion

9.1. Social marketing and advocacy groups

Through a multi-stakeholder and mixed methods approach, which utilized co-creation, the *Western Rising!* campaign significantly increased awareness (reporting knowledge of the Access Fund) and changes to behavior (signing of *The Climber's Pact*), in younger climbers and in an indoor facility. This provides evidence that social marketing can be an effective tool for outdoor advocacy groups and interventions used here (*e.g.* free stickers, specialty belay certification cards, and public commitments on posters) may be effective at other climbing gyms in accomplishing similar goals.

These finding support calls from other scholars (*e.g.* Desai, 2008; Shaw et al., 2013; Warren et al., 2017) that co-creation becomes an integral tool of social marketing efforts. In particular, a mixed methods approach aided in the co-creation process described in Stages 1 and 3. Said another way, surveys provided the breadth of information needed to develop and understand the target audience, while a focus group and a consulting session with the advocacy group provided the depth necessary to bring new innovative ideas to the forefront. As a result, the process outlined in this research may support other researchers and professionals with similar goals.

Additionally, use of the 4Ps to frame potential interventions enabled stakeholders to clearly see and act upon potential interventions. This application of the 4Ps was also seen in the effective de-marketing efforts by Weiler et al. (2018) and is therefore recommended in future research and practice. Here, cost and convenience were paramount in the selection process. These two selection criteria have been recommended in past research (see Borden et al., 2018). Since advocacy groups are commonly under-resourced (Ferraro & Pattanayak, 2006), these criteria for selecting interventions are worthy of mention and recommendation.

A critical area highlighted in this research was the use of promotion through public commitments on a poster and through belay certification cards. The increase in awareness and behavior reported here support previous recommendations by McKenzie-Mohr et al. (2012), Pallak et al. (1980), and Baca-Motes et al. (2013) to make commitments public and voluntary, increasing impacts on environmental behaviors. Also, the use

of promotional products, stickers and posters in this case, deemed relevant and desirable by the target audience (recommended in Stage 3 by the target audience), was effective in raising awareness of the advocacy group. However, it is difficult to measure the interventions independently. Said another way, it is unclear whether, or to what degree, an independent intervention created a significant impact on behavior and awareness. Instead, a mix of interventions were effective. While this is important to aiding future campaigns, it also reinforces the recommendation by Hall (2014) and others who promote a diverse mix of efforts to achieve success.

9.2. Management implications

The current research provides an example of how advocacy groups may apply social marketing to aid in their efforts which, in turn, theoretically support conservation. Therefore, management organizations (*i.e.* federal and state agencies) may also consider further applying social marketing efforts to their operations and supporting, or empowering, advocacy groups with similar goals in applying these tools. As identified by Schuster, Thompson and Hammit (2001) and Bogardus (2012) rock climbers have historically come into conflict with land managers with regard to certain behaviors (*e.g.* bolting and ignoring closures). To reduce these frictions, it is recommended to use advocacy groups, such as the Access Fund, to intervene in such issues. The high level of willingness to sign the commitment, after a subtle nudge of public commitments, and positive brand recognition of the group, demonstrates a high willingness of climbers to work with these types of organizations. Land managers should aim to leverage and maximize this positive relationship whenever possible. When promoting these advocacy groups to intervene or aid in conflicts, the use of co-creation with climbers, or other recreational user groups, is recommended, and supported by results presented here. Beyond interventions identified above, co-creation of content will better enable communications in using the language and cultural aspects of the user group.

Additionally, understanding of place meaning from work such as Kulczykcki (2014), will better ensure the advocacy group can position their efforts to meet the needs and desires of their constituents. In this research, understanding the three main dimensions (physical, social, and experiential) of place meaning aided in asking the focus group questions specific to these areas. This may be even more important if targeting behavior for a specific climbing area where some dimensions are more likely to be prominent than others from site to site. For example, as described by focus group participants in this research,

alpine areas have less social dimensions, while a local climbing area, which is close to the road, has more. Understanding that these dimensions exist, and how to gain greater depth from them, prior to co-creating content will ensure sessions deliver superior value.

9.3. Study limitations and future research

This research represents only one campaign in a rural and isolated location. Therefore, results may not translate across geographical locations. More examples of similar work are needed to confirm the promising findings presented here. While the selected interventions were effective, and the advocacy group is considering the future implementation of other co-created interventions presented herein, further research could focus on the application of those non-implemented ideas. Outside of co-created interventions presented here, it is important to note that other opportunities and tools for outdoor advocacy groups exist and warrant discussion.

Those tools are discussed in the literature review of this paper. For example, it is perhaps unsurprising that the campaign ultimately decided to target downstream, climbers themselves. While it did engage the advocacy group and climbing gym, midstream agents in these efforts, the final campaign's aim was to raise awareness and promote signing of the commitment by the downstream actors. Many scholars have argued that this downstream approach delivers lower return on investment and have called for more upstream approaches (see French et al., 2010; Andreasen, 2012; Hall, 2014; Borden, Shaw, et al., 2017). Future research should investigate ideas for transitioning upward in this pursuit. Relevant upstream questions include: How might we apply social marketing to policy promotion by outdoor recreational groups; can social marketing aid in grant writing or other revenue generating efforts; and, can social marketing be applied to encourage greater diversity, equity, and inclusion in the industry, either through improving hiring efforts or through the media messages produced by organizations?

Finally, demarketing, as explored previously, and other tools such as gamification (application of game mechanics to promote behavior change, see Hamari, Koivisto and Saras, 2014) and nudge theory (Thaler & Sunstein, 2008), would appear to be useful tools for advocacy groups. However, to date, they have not been explored as viable efforts for promoting the work within this unique context. Demarketing in particular would also appear to have great value as it could be applied to dispersing or concentrating usage, informing the public of closures, and protecting fragile areas which ultimately benefit the user groups by reducing the need for strict management measure resulting from excessive use and impacts.

10. Conclusion

The current research demonstrated an effective process for social marketing to support the goals of recreational advocacy groups. A campaign to promote environmental behavior among rock climbers increased awareness and behavior which may be effective in other locations. In the examined campaign, mix methods were used to identify opportunities for intervention. Co-creation with recreationalists and advocacy groups, framing interventions within the 4Ps for project planning, and leveraging public commitments significantly improved efforts. Future research should focus on other co-created interventions, presented in this paper, and other applications of social marketing for outdoor advocacy groups such as targeting upstream, demarketing and gamification.

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Appendix A. Supplementary data

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