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Exploring the Diverse Motivations of Volunteer Water Management Committees in Rural Malawi

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ABSTRACT: Motivated volunteer water committees are central to the effectiveness of community-based management (CBM) approaches to rural drinking water supply. CBM is the predominant approach to managing rural drinking water supplies, particularly in low-income countries. In CBM, it is assumed that a community's interest in a sustained water supply will motivate them to take on water supply management responsibilities. However, in practice and in the academic literature, Water Point Committee (WPC) members' motivations have been oversimplified and are poorly understood. This paper uses Self-Determination Theory (SDT), a theory of motivation, to analyse the types and quality of WPC members' motivations across six rural locations in Malawi. We found a wider range and quality of motives than has been documented in the literature. WPC members' autonomous, higher-quality motives included personal benefits from an improved water supply service, the pro-social nature of the committee role, an interest in learning and working with others, and positive changes in self-esteem. Lower-quality motives were experienced as feelings of being pressured and included continued committee participation to avoid shame or to avoid disappointing others. Our study findings show the relevance of SDT in providing a more nuanced understanding of what drives WPC members' commitment to water management responsibilities. This understanding of, and support for, members' motivations is critical for sustaining community-based rural water supply services.

KEYWORDS: Motivations, rural water supply, volunteers, community-based, Self-Determination Theory, behaviour change, Malawi

INTRODUCTION

In Malawi, as in most low-income countries, community-based management (CBM) is the dominant approach to the management of rural water supplies (RWS). In 2022, approximately 58.6% of Malawi's rural population – or just under 10 million people – had access to a basic water supply (WHO and UNICEF, 2022), that is, to water from an improved source where water collection time is less than 30 minutes for a round trip, including queuing. In CBM approaches, a volunteer village Water Point Committee (WPC) is responsible for the operation and maintenance of the RWS. In most cases in Malawi, the water supply is

provided via a handpump and the committee's role typically includes: ensuring that rules are followed at the water point, maintaining a hygienic and functional water point, organising communal labour for site cleaning and maintenance, conducting community and committee meetings, raising and managing funds and other resources for the water point, purchasing spare parts, carrying out repairs, and keeping records.

CBM emerged in the 1980s as part of an increased interest in participatory approaches to international development. In the RWS sector, low water coverage and limited confidence in the state led to calls for a shift in responsibility for RWS management and maintenance from government and development partners to community end users (Katz and Sara, 1997; Harvey and Reed, 2007; Lockwood and Smits, 2011; Moriarty et al., 2013). CBM assumes that water users will be motivated by their vested interest in sustaining the RWS to take on management responsibilities such as participating in decision-making and organising community contributions of materials, labour and cash (Carter et al., 1999; Lockwood et al., 2003; Moriarty et al., 2013).

Over the last 15 to 20 years, under the CBM approach, Malawi has seen significant improvements in water access for the rural population, with its basic rural water access improving from 46% to 59% in 2022. Under the Millennium Development Goals, it met its 2015 national targets for RWS access (Ministry of Finance, Economic and Ministry for Planning and Development, 2015). Between 2000 and 2022, however, water point functionality remained stagnant, with only 70-80% of water points operational at any given time (MoAIWD, 2012; Banks and Furey, 2016; Mwathunga et al., 2017; WHO and UNICEF, 2022).

Motivated committee members underpin the success of the CBM model through their operation and maintenance of the water supply. Despite the importance of their role, committee members' motivations have received limited attention in RWS literature. This is in part because, in terms of sustainability determinants, motivations have been considered to be "the most abstract and difficult to define or measure" (Lockwood et al., 2003: 20). When WPC motivations are discussed in academic and practice-based literature, they are often oversimplified and framed in binary terms (motivated or demotivated), which ignores the range and quality of people's motivations (Carter et al., 1999; Harvey and Reed, 2007; Das, 2014). This is significant as the *quality* of motivation reflects in management performance and the persistence of motivation, where 'persistence' refers to members' motivations sustaining over time. We acknowledge, however, that WPC members' motives are but one of the components critical to maintaining a functioning RWS service. World Bank (2017) research, for example, identified other building blocks of sustainable RWS such as: institutional capacity, asset management, financing, monitoring and regulation, and water resource management. Motivated WPCs nonetheless remain central to the success of CBM.

To address this gap in the understanding of motivations, this study uses Self-Determination Theory (SDT), an established and tested theory of motivation, to analyse the range and quality of WPC members' motivations in rural Malawi. We have used SDT to explore the range of WPC members' motivation types, and the quality of their motivations in rural Malawi. Seminal SDT literature has been cited over 60,000 times and has been applied in a range of contexts including health-related behaviour, education, workplace organisational behaviour, well-being, and pro-environmental behaviour. This paper draws from doctoral research and from a previous paper by the authors that argued that community endorsed and led rural water projects are more likely to support more-autonomous motivations of WPCs compared to top-down approaches (Cunningham, 2021; Cunningham et al., 2021).

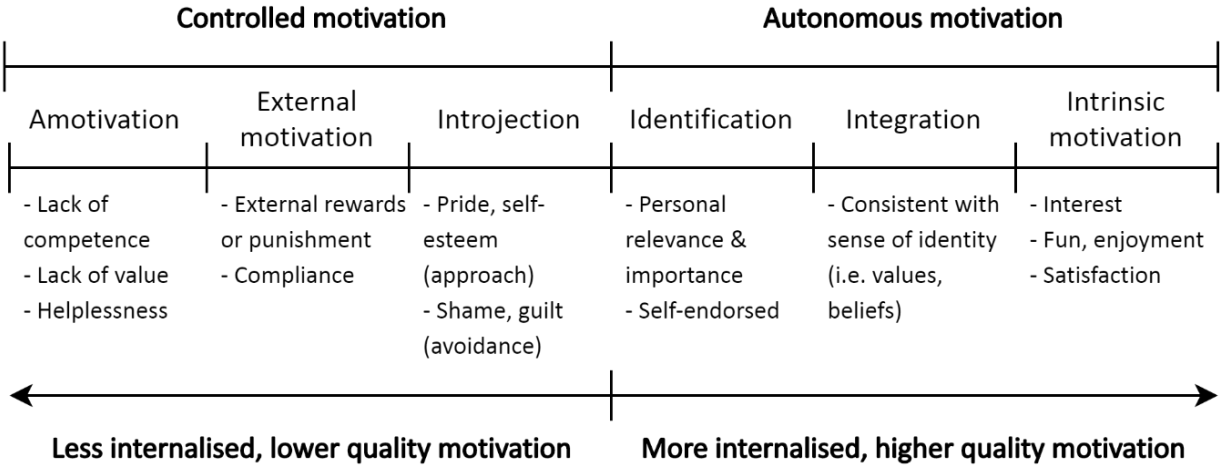
The application of SDT to rural water management is novel. Besides the publications we mention, we found no examples of its use in academic research regarding rural water and we found only a limited amount of SDT research in the international development context (Alkire and Deneuluin, 2000; Alkire, 2007; van Egmond et al., 2017; Sayanagi et al., 2018, 2021; Sayanagi and van Egmond, 2023). This paper

thus offers a valuable new contribution to SDT's application in international development, and in rural water, and provides rich learnings on WPC motivations for managing rural drinking water.

Autonomy is fundamental to SDT. It is defined as a feeling of being the origin of one's behaviour, as opposed to feelings of being controlled or pressured (Ng et al., 2012). SDT defines a continuum of types of motivation which are distinguished by the degree to which a behaviour is motivated by a sense of either autonomy or being controlled (Ryan and Connell, 1989). Autonomous motivations are internalised and are considered by SDT to be high quality motivations. Multiple studies have shown autonomous motivations to be characterised by a sense of volition, well-being, and the persistence of the behaviour in question (Deci and Ryan, 2000). Controlled motivations, in contrast, are considered to be of lower quality and to be driven by internal or external contingents that are experienced as pressuring; they are associated with tenuous behaviour, that is, behaviour that is unlikely to persist over time or if challenged (ibid).

To better understand the complexity of WPC members' motivations, Figure 1 summarises key SDT motivation types, outlining their characteristics and their positioning on a controlled-to-autonomous continuum. The types of motivation – from least to most autonomous – include amotivation, external, introjection, identification, integration and intrinsic. We provide further detail on the definitions of these motivation types later in the results and discussion section of this paper.

Figure 1. SDT motivation continuum.



Source: Adapted (with permission) from Ryan and Deci (2000).

This paper analyses what motivated WPC members to continue participating in their WPC and determines if these motivations were autonomous or controlled. For simplicity, we use the term 'water point committee' (WPC) to refer to the water point management committee and 'members' as individuals on the committee; these terms are consistent with language in Malawi RWS government guidelines. However village-level management structures for RWS go by different names depending on the country and management approach. We also use the generalised term 'community' to refer to the collective members of case study villages; again, we use this term for simplicity, while acknowledging that it has shortcomings as it disguises the diversity of people, groups, relationships, agendas and power dynamics within the villages.

METHODS, SAMPLING AND ANALYSIS

Data for this study was collected in 2018 in six rural villages in Southern Malawi. Three of these villages were in Phalombe district and three in Blantyre district. Villages were purposively selected based on four criteria: (1) existing collaboration with the primary author's Malawian NGO research partner; (2) reliance for domestic water on boreholes with handpumps; (3) operation under a CBM model; and (4) WPCs with at least 12 months of independent management experience. Table 1 below summarises the population across the six villages and the year of water point installation; the latter approximately coincides with the establishment of the water committee while noting that members may change over time. The NGO partner had installed water points in four villages, while the remaining two villages had existing water points installed by other organisations. All villages except for Location 5 had functioning water points.

Table 1. Sampled village characteristics.

District	Village reference	Population	Year of water point installation
Phalombe	Location 1	266	2014
	Location 2	224	2014
	Location 3	430	2014
Blantyre	Location 4	492	2007
	Location 5	1255	2000
	Location 6	542	2012

Prior to the installation of water points, in five of the six villages it took people from 1.5 to 5 hours to collect water from the nearest safe water source. In all six villages, women were affected disproportionately by the poor supply as it was their responsibility to collect water. The distance to water presented both a time burden and a personal safety risk for women. Closer alternative sources were available, but these were often unprotected and posed health risks. In most cases, the new water points had significantly reduced water collection times to under 30 minutes. This reduction underscores the critical role of sustained water point functionality in the reduction of burdens on communities, particularly women.

We used semi-structured interviews to determine members' motives for continuing in their committee role. SDT studies typically use quantitative methods and assess motivations via codified questionnaires. As WPC motivations have received little attention in the literature, we saw (qualitative) interviews as providing nuance and depth in exploring members' motivational experiences, their subsequent motivation types, and the context of their motivations. We also recognised, however, that using interviews rather than codified quantitative surveys makes it more difficult to categorise clear, non-overlapping motivation types.

Participants were purposively sampled to provide a representative balance in terms of their role (for example, a role of WPC member or a water user) and gender. To give a holistic perspective to motivations, interviewees included both WPC members and individuals who interacted with them; the latter included village heads, water users from each village, water point mechanics, and representatives of NGOs and government. A total of 44 interviews were conducted, with the interviews with the 12 WPC members

providing most of the motivation-related data. The interviews with village heads and others provided an external view of the members' perceived motivations as well as contextual information on rural water management in the area. We interviewed two WPC members from each village, for a total of five males and seven female members. Interviews with members focused on how and why they came to be on the WPC, high points and challenges associated with their role, and why they continued being on the committee. Interviews typically lasted one hour, with interview questions administered in Chichewa language via a translator.

Broadly speaking, discussions with other non-WPC participants included: their roles with respect to water use or management, their insights on the performance of the WPC, their views on WPC members' motives, and their opinions regarding the effect of NGO approaches on WPC members' motivation. In the results, pseudonyms are used for WPC members and for references for village names.

For analysis, interview responses were translated from Chichewa into English and then transcribed and coded using NVivo software. Responses were coded using a deductive, provisional coding approach where the research question (for example, "What motivated WPC members to continue to participate in their WPC and were these motivations autonomous or controlled?") was used to generate a preliminary list of primary codes. This approach was used to ensure the relevance of the coding structure (Miles and Huberman, 1994; Saldana, 2012).

SDT motivation types were used to develop codes for the analysis. To guide the coding process, we developed a series of illustrative phrases and experiences that reflected different motivation types; these were based on previously used SDT questionnaire tools from academic literature. The codebook which includes codes and example statements can be seen in Cunningham (2021). Integrated motivation (see Figure 1) was excluded due to its conceptual overlap with identified and intrinsic motivation, as noted in prior research (Roth et al., 2009; Gagné et al., 2015; Sheldon et al., 2017). To enhance analytical clarity (and following Sheldon et al., 2017), introjected motivation was further divided into the subcategories of avoidance-based (for example, guilt-driven) and approval-seeking (for example, pride-driven) introjected motivation.

Based on qualitative interview coding, as per the approach used by Anderson (2015), we categorised the importance of each motivation type (Figure 1) for each WPC member as either low, moderate or high. The importance was assigned based on how often the member discussed experiences akin to each motivation type, the emphasis they appeared to place on the motive, and researcher observations from each interview. For example, if a WPC member emphasised the importance of their role and their commitment to the role several times, or if they were notably enthusiastic in their responses, they were assigned a high value for the relevant motivation type (in this example, the type would be identified motivation shown in Figure 1 and later in Table 2). If, on the other hand, a WPC member made few or no comments that suggested they valued their role, they were assigned a low value for 'identified motivation'. Once the importance of each motivation type had been assigned, we averaged the significance (low, moderate or high) of each motivation type across all users to gauge the prevalence of the motivation type across all members.

The University of Technology Sydney ethics committee and the National Commission for Science and Technology in Malawi approved our research design and ethical approach. Additional approvals were sought from District Government staff and from the NGO research partner, as they all had ongoing relationships with the communities. The lead author met all community participants prior to interviews and then interviewed them during a later visit. Interviews and questionnaires were completed in settings that were convenient and comfortable for the participants. Interview participation was voluntary and interviewees had the option of opting out at any stage. No compensation was given for interviews, thus avoiding potential conflict with others who were not interviewed.

This study has three key limitations. First, self-selection bias may have influenced results, as only active WPC members were interviewed, thus excluding the perspectives of former or inactive members.

Second, the small sample size prioritised depth over breadth, which limited generalisability beyond the case study villages. Third and finally, qualitative coding was subject to researcher interpretation. To mitigate subjective approaches, we used the codebook (as described above) to standardise motivation classification. We also used multiple rounds of coding, uncoding or recoding text to enable critical reflection and ensure rigour in how codes were interpreted and applied (Miles and Huberman, 1994; Patton, 2002; Saldana, 2012)

RESULTS AND DISCUSSION

In this section the findings for each motivation type are ordered from the most to least autonomous, that is, from intrinsic motivation to amotivation. Although this order and structure makes the analysis logical, it does disguise the nuances of members' motives. As discussed below, members experienced multiple motives for their ongoing participation in the WPCs. We describe the nuances of the motivation type based on our review of the literature and we use quotes and observations from participants to illustrate how members experienced each motivation type. We then go on to discuss the implications of the findings for the design of rural water supply projects. A summary of findings is included in Table 2, found in the 'Implications' section.

Intrinsic motivation: Relationships or knowledge associated with the WPC role

Intrinsic motivation refers to engaging in a behaviour for its own sake. The behaviour itself is the 'reward' because it is experienced as inherently fun or interesting, and the behaviour emanates from a sense of self and is not a response to external or internal pressure (Ryan et al., 2008; Ng et al., 2012). Intrinsic motivation is the most internalised form of autonomous motivation and is considered fully self-determined. Intrinsic motivations can manifest in curiosity-based behaviour and in seeking challenges (Vansteenkiste et al., 2010) and are associated with positive well-being and performance outcomes (Deci et al., 2017; Ng et al., 2012; Deci and Ryan, 2000).

Of the 12 WPC members, none appeared to experience high levels of intrinsic motivation to participate in the WPC, five appeared to experience moderate levels, five experienced low levels, and two were judged to be inconclusive. Members expressed enthusiasm when discussing intrinsic motives; when describing aspects of their role, they used words like "happy", "pleasing" and "enjoyable". The analysis found that intrinsic motivation was experienced in three elements of the role: interest in the associated learning, enjoyment related to working with others, and appreciation of particular isolated creative activities associated with the committee role. These three distinct categories are discussed separately below. We note that these reasons were not necessarily the initial driver for joining the committee but rather became motives for continuing once the individual had become established in their position within it.

Role-related working relationships as a motive

Four of 12 WPC members described productive and positive working relationships as being aspects of the role that brought enjoyment. For Annie in Location 3, working together with others on a common goal was significant and was one of her reasons for continuing in the role. As she put it, "What pleases me most in this committee is that if we plan to service the borehole, we meet as the committee and supervise the borehole *together* (…) sometimes for the whole day" [emphasis hers].

Similarly for Wisdom in Location 6, when asked what drew him to continue in the role, he noted the significance of the collaboration with other committee members and users. According to him, "The women are exceptionally hard workers in this committee, in addition to the understanding of the community, [they are] of assistance when we need it – that makes my work really enjoyable".

For both Annie and Wisdom, their motives were virtuous and their engagement brought opportunities to collaborate with users or members; this, in turn, brought more-internalised (that is, intrinsic) engagement – an effect that has been observed in previous SDT research (see, for example, Deci and Ryan, 2000).

Interest in learning as a motive

Two of the 12 WPC members described motivations characteristic of intrinsic motivation regarding their role-related learning. When asked why she continued to participate in the WPC after six years in the role, Palesa, the secretary of the Location 6 WPC, said that, "I enjoy working in the committee as I learn a lot about water (…). So yes, I really enjoy the job". For Charles, the Location 5 chairperson, the initial training was a high point of his time with the WPC. As he put it, "I was very interested (…) to be formally trained on managing and maintaining the water point". In both these examples, the learning aspect and technical mastery associated with the roles held intrinsic value and were associated with feelings of enjoyment and interest.

Charles's initial intrinsic motivations, however, diminished with time. In Location 5, the boreholes had failed and could not be repaired without external support and as a result his experiences of intrinsic motivation diminished to a point where he was unsure why he continued in the role. We elaborate further on this later when discussing amotivation.

Interest in creative committee activities as a motive

Three of the 12 WPC members described their interest in, and enjoyment of, creative approaches as a motivator. Francis in Location 3 described the committee's design and installation of a drainage system as "[their] own initiative" and Wisdom and Palesa from the Location 6 WPC had installed a laundry wash area. Members were noticeably animated when discussing these examples, and the significance of these events persisted over time. As noted by Palesa, "The thing that I will never forget is that we built that sink in my position as the secretary". In both Locations 3 and 6, users had also supported committee members in the construction, thus providing further affirmation of the committees' initiative.

When Francis, Palesa and Wisdom discussed creative tasks, they stressed that the tasks were initiated independent of external support or pressure, that is, there was no evidence of an associated 'should'. They enjoyed their experience of autonomy and efficacy in the process of designing, constructing and fundraising for the structures and felt ownership of the outcomes.

As isolated events, it is questionable if opportunities to engage in periodic creative activities remain relevant as a day-to-day motivator for participation in the WPC. Nonetheless, they provide a useful contrast when comparing the quality of such motives with more external motives such as social pressures. This is discussed later in this paper.

Limited examples of intrinsic motivation

As mentioned above, five of the 12 WPC members showed low levels of intrinsic motivation and two were inconclusive, suggesting limited evidence of intrinsic motivation. This was highlighted by Grace's experience in Location 4. According to her, "There is nothing interesting in the role". Few members used language consistent with intrinsic motivation and when they did reference intrinsic motives they were often not emphasised and appeared to be considered less important than other types of motivation; in other words, intrinsic motivation was experienced at only a low level.

Why were few examples of intrinsic motivation shared in interviews? It is important to note that not all behaviours will be, or indeed can be, intrinsically motivated. Previous SDT research has excluded intrinsic motivation from assessments, accepting that some behaviours are not inherently interesting or enjoyable and are thus unlikely to be intrinsically motivated (Ng et al., 2012; CSDT, 2020). Most

committee members had been in their roles for two years or more. It may be that the mundane tasks that comprise the bulk of WPC duties such as regular maintenance and bookkeeping became uninteresting over time, or that members began to lose sight of their relevance, leaving them with feelings of pressure or being controlled related to the tasks. For example, where a handpump was working well, the reasons for preventative maintenance are less obvious than repairs for a broken borehole.

Identified motivation: A desire to avoid returning to a previous time when water access was difficult

Identified motivation experiences are characterised by people having their own rationale for the behaviour. For this motivation type, the behaviour is valued and holds importance for them, and is congruent with their goals and identity; this is evident in, for example, an individual's assertion that they "value the benefits of volunteering" (Ryan et al., 2008; Ng et al., 2012). When experiencing identified motivation, the person feels autonomous when performing the behaviour even when the task is uninteresting to them. The identified motivation type is distinct from intrinsic motivation in that the behaviour itself is not necessarily rewarding or interesting; it is thus considered a moderately autonomous motivation.

Across WPC members, identified motivation was the most prominent motivation category for continued committee participation. Six of the 12 WPC members experienced high levels of identified motivation, six experienced moderate levels, and none experienced low levels. We found that WPC members experienced two forms of identified motivation types. The first comprised motives related to the benefits they enjoyed as a user of the water point; that is, members valued the personal outcome of sustained, improved access to water. The second form related to the community service nature of the role. Both forms of identified motives were associated with a sense of volition and persistence of participation. Members often described the persistence of these motives despite their experiences of adversity. Some members, for example, continued to volunteer for identified-type reasons such as valuing a continued water supply, despite disincentives such as verbal abuse from users. Below, we elaborate on the two forms of identified motivations.

Members' benefits as a user of the water point motivated their participation

WPC members were also users of the water point. Eleven of the 12 WPC members participated in the WPC because their involvement supported their own access to a sustained water supply and benefited them as users. As Hendreson in Location 1 described it,

> For a long time we had been looking for suitable water supply in the community and we got it. [To ensure a] continuous water supply, we work as a team and organise ourselves. So, since we collaborate nicely, it motivates us to not give up, to ensure the borehole is still operating.

Members' identity as water users was clear in their use of first-person pronouns such as 'I', 'we' or 'us'; they made statements such as, for example, "I benefit from the borehole" or "we are all beneficiaries of the borehole". Members' volitional, rather than controlled motivations to participate in the WPC was evident when they described their 'why' of participation. Their use of terms and phrases such as, "importantly [for us]", "we need", and "we understood", and "easy to mobilise" indicated their sense that they were internally motivated. Members' comments that, for example, they would "not give up" were consistent with SDT findings that identified motivations as being associated with behaviour persistence, which manifested in this case as sustained participation in the WPC.

Members identified with historical challenges associated with a lack of water, and they thus viewed their participation as important in ensuring the continued operation of the water point. As noted earlier,

historical water challenges had been severe, with travel to safe water sources ranging from 1.5 to 5 hours. Olivia, in Location 1, explained how this situation impacted women in her village, saying that,

> We couldn't sleep, because we used to fetch water from very far at Nambazo, such that the women were waking up early leaving their husbands alone. The past experience of water problem motivates everyone in the community to participate on the WPC to ensure that the borehole is sustained.

WPC members see their role as community service

Autonomous pro-social motives were significant for most members. Pro-social behaviour is behaviour that enhances or protects the well-being of others (Weinstein and Ryan, 2010). Of the 12 WPC members, 11 were autonomously motivated to participate because of the community service nature of the role. Members' language when describing these service-type identified motives included: "our/everyone/community", "community benefit", "important [for others] ", "volunteer", "service", "entrusted", and "responsibility". This motivation type was difficult to separate from members' individual benefit and their identity as a user as described above. WPC members often conflated personal benefit and benefit for others, nonetheless we view this pro-social orientation as a distinct motive experience.

In these cases, the benefits of the members' participation were orientated towards others in their community. There was no evidence of external controls, and the service nature was integrated with members' sense of identity. This can be seen in their responses:

> We desperately needed water in this community, and we can't joke about this. Now that the water is here, we can't take [donor] assistance for granted. It's a number one priority [for the WPC] (Wisdom, Location 6).

> I don't personally benefit anything, but with the community benefiting – that's enough. That's what motivates me; it's my responsibility to serve the people. Water is vital for every human being (…). I see no personal benefits to this (Palesa, Location 6).

> [The motive for being] a volunteer is to help the community because I knew it is volunteerism from the beginning. Therefore, it is my personal choice to partake on the WPC and nothing else (Cynthia, Location 2).

Their pro-social motives were described in the context of choosing to be on the WPC, the absence of material rewards, and efficacy in helping others. Language used above such as "important [for others]", "volunteering", and "choice" indicated the sense of volition (autonomy) that was associated with pro-social motivations. The quotes above also clearly show the significant focus on connection, care and support for other people in the community. They include, for example, references to, "every member getting access to water" and "help[ing] the community".

Approach introjected motivation: Seeking feelings of self-worth or pride

Introjected motivation is referred to as ego-contingent behaviour. It is associated with a fragile sense of self-worth, feelings of pride or shame avoidance, and a need for social approval (Assor et al., 2009). In extrinsic motivation (discussed below), another person administers rewards and punishments, while in introjection they are self-administered. A sense of self-worth (pride) is the expected reward while self-criticism (guilt and shame) is the punishment, although a person may experience introjection as if external values or goals are thrown onto them (Assor et al., 2009; Vansteenkiste et al., 2010). In introjection, such external standards of behaviour may have been adopted without being fully internalised (Assor et al., 2009). SDT considers introjected motives to be of poor quality compared to more-internalised forms of motivation, unless the actors in question can internalise and endorse the behaviour.

Introjection motivation can be further categorised as either 'approach' (seeking self-worth as in, for example, pride) or 'avoidance introjection' (avoiding loss of self-worth, such as feelings of guilt and

shame) (Sheldon et al., 2017). In this section, we focus on approach introjection motivations, that is, behaviour that is intended to enhance feelings of self-worth.

Of the 12 WPC members, none described high levels of approach introjection motivation, eight experienced moderate levels, and four experienced low levels. Members used language that expressed feelings of self-worth and pride associated with the status of the position and the knowledge they had gained through the role. From the members' perspectives, both of these factors differentiated them from others in the community.

Pride in the position as a motive

For nine of the 12 members, pride drove their initial engagement in the WPC. Members viewed their election and their role as a point of differentiation from others in their community, and something that drove their initial interest and subsequent ongoing participation in the role. It is important here to distinguish between pride *because of* being chosen and pride as a *reason* for participation, that is, pride-seeking. In SDT, motivation is principally concerned with the reasons for engaging in a behaviour rather than concern with the emergent outcomes or feelings (results) of behaviour.

However, WPC members often found it difficult to delineate between motives that drove members' initial participation compared to their ongoing participation. In the analysis it was sometimes equally difficult for the authors of this paper to delineate what was an emergent outcome and what had become a driver for continuing in the role. This was the case for several motivation types, including approach introjected motives. When discussing ongoing motivations of pride, for example, Cynthia in Location 2 described her positive feeling after being nominated. She noted that, "people saw potential in me" and she viewed the nomination as an endorsement of her abilities. In Cynthia's case, pride had been an emergent feeling after deciding to engage in the WPC, but it had then continued to be a 'reward' for her ongoing participation. Other members had a similar experience. As Hendreson in Location 1 explained, "We are volunteers but since we have the trust of the people and we do the work to the satisfaction of everyone in the community, we keep on moving". Although SDT often describes the tenuous nature of approach introjection motivation in driving behaviour, as per this example, pride continued to motivate members beyond their committee election.

Pride in unique skills

Members linked their feelings of pride to the unique skills associated with their position. They took pride in the skills they had learned in training or in the performance of their role. It is likely that the combination of an official position and specialised expertise gave members a feeling of legitimacy and status. This is evident in the observation by Ezra, the village head of Location 4, who noted that,

> [Committee members] feel good, they feel educated. The entire community has to literally sit down and watch them fix the borehole until water starts coming out and the people cheer. So you can imagine the prestige and good feeling that comes with being the ones educated and trained in a community.

Members' pride-based motivations were further sustained when peers provided positive feedback that fostered feelings of self-worth. Cynthia, for example, reported members' responses to her directives as being a highlight of the role; as she put it, "I tend to be happy because I have delivered the message and the community has obeyed. So I know that I have some good leadership skills". Charles, in Location 5, referred to encouragement from users as motivating his ongoing participation, commenting that, "People are still pleased with me". Those members who experienced both pride and ongoing positive feedback generally sustained their participation and commitment to the role.

Other members' feelings of pride were decoupled from their performance. In Location 4, for example, WPC members' management effectiveness was low, and they were vague when asked about the activities and responsibilities of their role. However, they described experiences akin to pride motives

that were linked with the status of the position and the mandate to lead. Esther from Location 4, for example, noted that, "I personally enjoy being a committee member because I am a leader, and if people chose me, then they knew that I am tolerant and capable of performing". In Location 5 there was little to no water for the members to manage, but Trish, a WPC member in that location, nevertheless clung to her role, saying that, "For as long as I am alive, I will still serve on the WPC". She appeared to be more focused on, and controlled by, the status of the position and her unique skills, as opposed to more volitional participation. Pride motives when decoupled from performance, as with Esther and Trish, tend towards the more-controlled end of introjection on the SDT motivation continuum (see Figure 1).

Avoidance introjected motivation: Avoidance of shame or of disappointing others

SDT describes the increasingly tenuous nature of motivation as it becomes more externally driven. Avoidance introjection is a controlled motivation. It is typically correlated with a fragile ego and with attempts to meet standards to avoid feeling ashamed, unworthy or guilty (Gagné and Deci, 2005; Assor et al., 2009; Sheldon et al., 2017). In introjection, autonomy is absent (Ryan and Deci, 2000) and, instead of acting by choice, individuals feel pressured, which limits their ability to internalise the behaviour and risks reducing, stopping, or rejecting the behaviour in question.

Of the 12 WPC members, none appeared to experience high levels of avoidance introjection motivation, five experienced moderate levels, six were low, and one was inconclusive. Language used by members reflected feelings of social pressure; these included the desire to avoid disappointing others and concerns about feeling judged. When describing avoidance introjection experiences, members mostly referenced other people in the community – that is, a concern that they do not disappoint water users – though some described feelings of pressure with respect to NGOs.

Avoiding shame or disappointing others in the community

Of the five members who reported moderate avoidance introjection, four described avoiding shame or avoiding disappointing water users or the village head. Avoidance was linked to the members' initial election and to their fear of disappointing those who had expressed confidence in them. Paul, in Location 2, noted that, "The chief [the village head] nominating us means that he trusted us (…) and therefore, I do not want to leave and disappoint him". Annie, in Location 3, similarly said that, "If you do not value [the role], you disappoint the people". These experiences are congruent with Ryan and Deci's (2017: 186) description of introjection where, "individuals often project their self-approval [approach] or self-disapproval [avoidance] onto others, imagining that these others will approve or disapprove of them as a function of their behaviour". Members' concerns about the views of the village heads or water users meant that their inner standpoint was tenuous as it was dependent on the opinions of others; hence their motivations were unstable.

WPC members' concerns about how others perceived them were understandable. In some areas, user trust was fragile due to their limited understanding of the WPC's operations. Also, the WPC's responsibilities included collecting money from users, which led to suspicions among some users about how the funds were being managed. WPC members could also be blamed for mismanagement or failures at the water points. This precarious situation likely intensified members' feelings of avoidance introjection motives (for example, avoiding shame or disappointing others) and made it challenging for them to fully internalise their motivations to participate, as they were preoccupied with others' opinions.

Avoiding disappointing development partners (NGOs)

When members discussed their motives, they made few references to implementing NGOs. Only one WPC member in Location 1 and one in Location 6 linked NGO perceptions to their motives. Hendreson in Location 1, for example, described the importance of the WPC's role in maintaining donated water supply infrastructure, saying that,

> A good depiction of our scenario can be in this form: imagine you desperately need a shirt, and someone decides to give you one. What better way is there to show your gratitude other than to take care of the shirt and wash it regularly? That's why we take good care of our borehole.

We posit that the limited focus on NGO actors was because most WPC members had few interactions with NGOs. Most community-NGO interactions were managed by animators and village heads and the involvement of NGOs declined over time. In terms of the motives of WPC members, internal village relationships were more relevant than WPC-NGO relationships. Pressure from (perceived) powerful NGOs is discussed below as part of external motives.

Members' feelings of pressure were clear when they discussed avoidance introjection-type behaviours. They described participating in order to avoid "disgrace" and "blame" from either NGOs or other community members. For some, avoiding loss of self-esteem appeared to be a constant stressor of the role. There is a stark contrast between such experiences and the language that is associated with intrinsic motivations, such as "enjoyable" and "interesting". These avoidance introjection-type experiences were thus consistent with SDT research, which associates these motivations with reduced vitality and well-being (Nix et al., 1999; Sheldon et al., 2004). While many members internalised social pressure, others described motivations being rooted in more explicit external expectations, as discussed in the next section.

External motivation: Lack of material punishments or rewards, presence of social regulation

External motivation refers to behaviour that is contingent on rewards or punishments that are either social ("when the boss is watching I work") or material ("I work for the financial bonus") (Deci and Ryan, 2000; Gagné et al., 2015). Multiple studies have shown the undermining effects of externally driven behaviour that is contingent on rewards or punishments. Individuals whose behaviours are externally motivated feel less ownership of those behaviours and, compared to those who are internally motivated, and are less likely to sustain the behaviour once rewards or punishments are removed (Sheldon and Prentice, 2019). Importantly, external contingencies can also undermine peoples' intrinsic or more internalised motivations (Ryan and Deci, 2000).

Separating avoidance introjection from external motivation can be difficult (Gagné et al., 2015). In coding for this research, when the individual appeared to be pressuring themselves ("I don't want to disappoint the village head"), responses were coded as avoidance introjection. When, on the other hand, an important other person could or was appearing to be a source of pressure ("The village head would be disappointed"), responses were coded as external motivation. When the delineation remained ambiguous, we reviewed full interviews and interview notes to examine the context of responses and we adjusted our coding where needed. It should be noted that village heads were used for this example as they hold power in the villages. Their approval could be seen as a sign of status, and they also hold the power to administer sanctions to committee members and users.

Of the 12 WPC members interviewed, three appeared to experience high levels of external motivation, five experienced moderate levels, three were low, and findings for one member were inconclusive. Members' language associated with external motivation included "blame", "convinced [by others]", "avoid disappointment [from others]", "and show gratitude [to others]". Themes of responses were focused more on experiences of loss and gain than on internal feelings of 'good' or 'bad', as with introjected motives. Experiences of external motives are discussed below.

Members emphasised the voluntary nature of the role

Members referenced the voluntary nature of their role and the absence of external rewards. They explained that their motives were not related to payment but rather were based on service to the community. Paul, in Location 2, noted that, "To serve in the committee is just our kindness, [it's] not to be paid". When asked what advice he would give to other WPCs, Francis, in Location 3, responded that,

"They should be strong and never give up. I would also tell them that this is a non-salaried job so their motivation should not be anything other their love for the community". Grace, in Location 4, explained her motivations to stay in the role as, "Not [because of] pay, [but] because we are all beneficiaries of the borehole. So we neither need to be paid for the services rendered, nor need to stop because they are not paying us". As described earlier in this paper, although material rewards were not part of participation in the WPC, other less tangible rewards such as status, enjoyment, and improved water supply for themselves and others were salient for members.

The lack of external material motivations reflected the absence of external motivations for WPC members in our findings. Because roles in the WPC are voluntary, people motivated by pro-social motives are more likely to participate than those motivated by rewards such as salary. Notably, research participants were *existing* WPC members, not those who had left or had been removed from a committee. This meant that there had been some self-selection in the research methods and those who were externally motivated may have been underrepresented in the research participant sample that focused on only active members. This was illustrated by Edith, the animator in Location 2, who explained that, "Three members, led by the chairperson, dropped out because they had expectations of some benefits like a salary".

Development partner (NGO) power and resources as a motive for participation

Although material rewards were absent, some WPC members mentioned external social pressures as motives for participation. These motivation experiences are distinct from the previous introjected examples. External social pressures can be conceptualised as someone else doing the punishing or rewarding, rather than individuals punishing or rewarding themselves.

Wisdom, in Location 6, was concerned with inciting disappointment or blame from the NGO that provided the borehole. He explained that poor management would be dimly viewed by the organisation. According to him,

> The people who brought this borehole to us, they clearly understood our problems. What would such people think if they were to see members of the community, they spent their money on, ignore the help they have been given? What would they think if they saw the members of the community not take care of this borehole?

Water committees are expected to undertake their duties, including maintaining boreholes, as part of the CBM approach (MoAIWD, 2015). Development norms can also mean that community commitment (that is, participation) can be a prerequisite for projects to be implemented. NGO interviewees that were part of this research, for example, cited instances of projects being moved from a community where participation was perceived to be low to another community where it was judged to be higher.

Though Wisdom did not explicitly mention the consequences of disappointing donors, we assessed his response as indicative of these participatory development norms. In participatory development, the active participation of community 'beneficiaries' is expected as part of NGO-community relations. It gives them 'skin in the game' and district staff and NGOs use it as a proxy for a community's commitment to a project. Some interviewed members noted the community contributions of land, labour and materials for construction of water points and also their commitment of time and energy to the ongoing management efforts. In return, the NGO provided funding, influence and training resources. Wisdom's response showed that he was aware of the importance of community maintenance; however, his rationale for "[taking] care of the borehole" was based on his desire to avoid disappointing the NGO rather than on more-internalised motivations.

Social pressures from within the community as a motive for participation

Four of the 12 members were concerned with approval or pressure from users and peers. This reflected in their fear of failure and the subsequent social consequences. WPC members were exposed to their peers' judgement because of the significance of the WPC role. When Paul from Location 2 was asked why he persisted in the role, he responded, "We remain committed because if the borehole is to stop functioning, we are the ones to be blamed, not outsiders". Similarly, Olivia from Location 1 said, "The committee before us failed and was disgraced and dissolved. We don't want the same fate to befall us". Annie, in Location 3, described her social approval as supportive on balance, so she continued to volunteer; as she put it, "Those that respect me outnumber those that disrespect me. So it's my personal choice to continue to repay those that respect me". For Charles, in Location 5, external pressure encouraged him to continue; in the interview he commented that, "I don't know why the people feel that I should continue leading the [WPC] group. I would say that, maybe they do have valid reasons about the way we are serving on the committee, and want me to proceed with the same work".

These responses showed how members' motives were controlled by, and contingent on, WPC-user relationships. These relationships were fragile, and users held power over WPCs via their approval or disapproval of committee members. Users could also express their power through payment or non-payment of water tariffs; this was noted by an area mechanic in Location 3 who said that, "[Users] become suspicious, and this can lead to default of payment of monthly contributions. This can also be a form of silent protest". Social pressure thus drove WPC participation, but it clearly came at a cost. For WPC members, accountability coexisted with feelings of pressure, and this further entrenched being externally orientated and motivated.

In summary, WPC members' external motivations were related to concern around blame from others in their community for failing to properly manage the water point. Material rewards or punishments were not salient for members because of the voluntary nature of the role and the self-selection of WPC members. The following section describes the prevalence and experiences of the last motivation type, amotivation.

Amotivation: Limited examples

Amotivation is an absence of motivation. It results from a lack of perceived value of the behaviour in question (for example, "I'm just not interested in the work"), or a perceived lack of competence ("I gave up when I didn't even know where to start") (Ryan and Deci, 2017). Of the 12 WPC members, no one appeared to experience high levels of amotivation, two experienced moderate levels, and ten did not describe any feelings of amotivation.

"Nothing interesting in the role"

Grace, in Location 4, was one of two participants who described experiencing moderate amotivation. As mentioned above, when asked in her interview why she continued on the WPC in the face of its challenges, she responded that, "There is nothing interesting about being a committee member (…). Yeah, at times it really feels like a burden". In her case, it was not clear if the amotivation was because she did not value the role or for other reasons. Although Grace noted in the interview that she valued access to water as a user (that is, an identified motivation), her participation in the interview process was unenthusiastic and her answers were brief. Her motivations for participating in the WPC were unclear; indeed, it was difficult to determine why she continued in her role.

Amotivation in Location 5 and lack of competence

In Locations 4 and 5, amotivation primarily stemmed from perceived low levels of competence. Charles, the Location 5 chairperson, experienced moderate amotivation as there was little to no water to manage

in his village. Two of the three water points in Location 5 were dry while the third provided only 20 litres of water every three hours, much lower than the acceptable yield of ten litres per minute for handpumps defined in RWS literature (Bonsor et al., 2018). The WPC in Location 5 had no savings and most of its members had left or were inactive (that is, were amotivated). That Charles and Trish (a fellow WPC member) remained active seemed surprising. It appeared that their persistence in the WPC resulted, at least in part, from their pro-social motive of supporting four elderly residents who continued to use the borehole close to their home. As Charles noted,

> It is not that the borehole stopped functioning completely, but just the water is inadequate, you can hardly fill a bucket from this borehole. So the elderly who cannot walk to the next borehole of another village, and also those who do not need much water are served by this borehole.

This pro-social motivation of serving the elderly thus drove participation for Charles and Trish, but only up to a point. The poorly functioning water point meant that their WPC effectiveness was compromised. At the time of the interviews, Charles saw no avenues for changing the situation and questioned whether he would even continue on the committee, feelings akin to what Sheldon and Prentice (2019) describe as feelings of helplessness or hopelessness that accompany amotivation. Such feelings were evident in Charles's interview response when he was asked why he continued to lead the mostly absent WPC; as he put it, "Sometimes I consider handing over to another person (…); we had been requesting different organisations for help, including [the NGO], but to no avail. As such, we [the WPC] cannot do anything".

Charles's experiences provide a regrettable yet instructive example of how motivations can shift over time in response to changes in the circumstances surrounding a member's WPC role. He described historical experiences of autonomous motivations that had been based on his interest in the role and the training opportunities it provided. These higher-quality motivations had become less important over time as the persistent failure of the water points and the inability to resolve the problematic issues dominated his experience of participating in the WPC.

IMPLICATIONS

In this section, we reflect on the prevalence of motivation types across all members and the use of SDT as a framework for exploring motivations in the management of rural water supplies (RWS). We challenge the simplified assumptions regarding WPC members' motivations that are found in the existing RWS literature. Table 2 summarises members' motivation types, their lived experience of the motivation type, and the prevalence of each motivation type across the twelve WPC members. The motivation types are ordered from more autonomous, higher quality motivations to more controlled (less autonomous), lower quality motivations.

Members experience a wider range and quality of motives than has previously been documented

Use of the SDT framework showed that WPC members in Malawi experienced a wide range and quality of motivations for participating in the WPC. Our findings highlight three key themes regarding members' motivations across all WPCs: (1) a high prevalence of identified motivations, (2) low levels of amotivation, and (3) moderate levels of intrinsic, introjected and external motivations. Social pressure was a controlling element for several members.

Table 2 illustrates the spectrum of motivation types observed among WPC members. These ranged from highly autonomous forms such as intrinsic motivation (driven by inherent interest and enjoyment), to more-controlled forms such as external motivation (influenced by external rewards or pressures) and amotivation (total lack of motivation). Across members, we found identified motivation types were the most significant. By comparison, members' amotivations were low, and levels of intrinsic, introjection, and external motivations were moderate. These findings were consistent with previous applications of SDT in a development context. Sayanagi and Aikawa (2016) researched Kenyan farmers' motivations to

Table 2. Summary of motivation types at all sites.

Motivation type	Motivation experience	Prevalence of motivation type across all WPCs
Intrinsic motivation	Working with others Interest in learning Creative activities	Low-moderate
Identified motivation	Benefits as a user Pro-social motivations	Moderate-high
Approach introjected motivation	Pride in the position Pride based on unique skills	Moderate
Avoidance introjected motivation	Avoidance of feelings of shame with respect to others in community Seeking to please NGO partners or users	Low-moderate
External motivation	Social approval or disapproval Avoiding NGO partner disappointment Lack of external rewards	Moderate
Amotivation	Uninteresting role Disengagement or lack of clarity on reasons for participation	Low

participate in an agricultural programme. They found a similar predominance of identified motivations, including farmers personal valuing of the programme's outcomes and their pro-social 'other'-orientated motives. In other development programmes that are socially focused, volunteer-driven and focus on the relevant needs of people, one could expect to find a similar salience of identified motivations.

As noted in the introduction to this paper, RWS literature notes that CBM's success in the operation and maintenance of rural water supplies is dependent on the assumption that users will be motivated by their personal interest in an improved water supply (Carter et al., 1999; Lockwood et al., 2003; Marks et al., 2013; Moriarty et al., 2013; Kelly et al., 2017). Informed by the findings of our research, this motive assumption is analogous to identified motivations. Identified motives are internalised, are concerned with behaviour that is valued, and is congruent with personal goals (Ryan et al., 2008; Ng et al., 2012). Our findings were consistent with this assumption from RWS literature, that is, that the benefits of an improved water source were a key motive for members' participation in the WPC.

However, members had several other reasons to participate in WPCs besides their personal interest in an improved RWS. As discussed, identified motives in the form of pro-social service to others were also a significant motive for participating in the WPC. Surprisingly, and despite the voluntary nature of WPC roles, the pro-social motives of WPC members have received limited attention in the RWS literature.

More-controlled motives also drove WPC participation. As summarised in Table 2, approach introjection (for example, participating for reasons of pride), and external motivations (such as avoiding blame from others) were moderately significant for all members. Avoidance introjection (such as avoiding disappointing users) showed a low to moderate significance. Members experienced these motivations in the context of actual or perceived social rewards and pressures; these included feelings of pride associated with user compliance, not wanting to disappoint users (or, less commonly, NGO partners), and avoiding the disgrace associated with a failed committee or water point. Few members valued mundane

activities where the rationale for the behaviour was not immediately obvious, such as bookkeeping and preventative maintenance. Instead, such activities were linked with external expectations from users and, to a lesser degree, from NGOs, and members used controlled-type language when describing their motives regarding these activities.

Studies by Das (2014) and Marshall and Kaminsky (2016) also examined motivations relevant to CBM. Das (2014) did not use a tested theoretical framework and Marshall and Kaminsky (2016) analysed motivations using Maslow's contested motivation theory of the hierarchy of needs (1943). Similar to our findings, they identified the salience of motives based on improved access to RWS (benefits to the user), self-esteem (pride), and connection to others (positive relationships and community service) (Das, 2014; Marshall and Kaminsky, 2016). These studies also identified financial compensation as a motive (Das, 2014) as well as psychological safety (preference for familiar water sources) (Marshall and Kaminsky, 2016), neither of which was identified in this research. This inconsistency can be attributed to the characteristics of the CBM projects sampled and the frameworks used (or, in the case of Das, not used) by the authors. Although there were some inconsistencies with the cited studies and our research, it remains that by using an SDT framework we defined a greater diversity of motives than those previously outlined in existing RWS literature.

We found that WPC members' motivations for participation varied in quality, ranging from controlled to more-autonomous. We hold that different motives will impact members' management effectiveness differently. Previous SDT meta-analyses (Deci et al., 1999; Deci and Ryan, 2000; Patall et al., 2008) have shown that, compared to controlled motivations, autonomous motivations are associated with greater persistence, creativity, problem-solving and psychological wellness.[1]

Finally, although motivation experiences were specific to the case study participants and although the sample size was limited, we argue that this mapping of the diverse range and quality of motivations provides an illustrative starting point for identifying motivation experiences in other country and CBM contexts.

SDT provides a theoretical basis for determining motivations in RWS

As discussed in the introduction, motivations are poorly understood in RWS literature despite their importance in CBM approaches to water. The absence of a theoretical exploration of motivations and the subsequent limited conceptualisation of motivations has left many motivation experiences, and their consequences, underexplored. The RWS literature yielded limited evidence of motivation frameworks or tools that had been explicitly used to measure or explore the motivations for WPC membership and participation.

While SDT is well established in other disciplines, its application in RWS research has clearly been limited. This study demonstrates its utility in capturing a broader spectrum of motivation types, thus offering new insights into what drives WPC participation. The findings further illustrate that SDT is an appropriate framework with which to analyse and evaluate the quality of WPC members' motivation experiences. As demonstrated in this paper, using SDT has provided a framework for defining the range of motivation experiences and types in a CBM context. In the process, this research has built on the current understanding of what drives WPCs' commitment to management responsibilities, and it provides fertile ground for using this theory to conduct further investigations in other country contexts.

Members' diverse motivations have implications for management effectiveness

Understanding the quality of members' motivations can help predict and explain RWS sustainability outcomes. Autonomously motivated members are more likely to engage with, and persist in, their roles

[1] The implications of members' diverse motivations for water management performance are not discussed in this paper but are examined in Cunningham (2021).

– an assertion that is backed by SDT research in other disciplines. Previous SDT meta-research (Deci et al., 1999; Deci and Ryan, 2000; Patall et al., 2008) has shown that, compared to controlled motivations, autonomous motivations are associated with higher levels of persistence, creativity, problem-solving and psychological wellness. These effects have been observed across a range of domains and cultures globally, including education, health interventions and workplace settings. As noted, Cunningham (2021) examines the linkages between motivation types and management performance. In sum, Cunningham (2021) found WPCs whose overall motivation orientation was autonomous had internalised WPC management responsibilities and were more effective in their management approaches than WPCs whose overall motivation orientation was controlled.

Understanding motivations can support improved design of RWS programmes

The variable quality of different motivation types has direct implications for future iterations of CBM design approaches in Malawi and beyond, namely through design approaches that seek to foster autonomous motivations by: (1) limiting drivers of extrinsic motivations and amotivations, and (2) supporting members' intrinsic motivation experiences (for example, providing opportunities to learn, supporting a collaborative approach to the work, and encouraging creative problem-solving) and their identified motivation experiences (such as community service and the benefits members enjoy as a user).

Where communities are expected to manage the water supply, design approaches could limit extrinsic motivations by adopting participatory decision-making and avoiding top-down and donor- or government-led driven approaches, thus providing real voice and choice in the design and management of systems. Furthermore, before WPC members start in the role, they should understand that some elements of CBM may be mundane or may lead to relational challenges with users. This kind of preparation may limit the feeling of being pressured to participate when these challenges arise while performing WPC related duties.

More-autonomous motivations could be supported via CBM training approaches that identify the community challenges associated with poor access to water and draw out the range of benefits that a well-managed supply can bring for members and users. This is particularly important given the voluntary nature of the WPC member role and our findings which showed that pro-social motives were the most common motives across members. Training for WPC members could also promote interesting aspects of the role or could encourage a focus on collaborative working relationships between members, and between members and users.

The findings also point to the importance of ongoing external support for WPCs. As discussed in other studies (Miller et al., 2019), external actors could support functions such as ongoing capacity-building, administrative and financial assistance, monitoring, and technical assistance. There is a general consensus in RWS literature that external support is necessary to sustain CBM approaches to RWS (Moriarty et al., 2013; Fisher et al., 2015; Hutchings et al., 2015; Miller et al., 2019). For Charles, as an example, the failed borehole was beyond the financial capacity of the committee to address and had resulted in a disengaged committee as well as a poor water supply. Our findings suggest that ongoing structural support can aide the continuance of more-internalised WPC motivations.

The importance of the WPC-user dynamic also points to the importance of maintaining and improving this relationship. This conclusion is consistent with previous studies on CBM (McIntyre and Smits, 2015). Efforts to support these relationships may include, for example, ongoing external support to address and resolve WPC-user conflicts, efforts to foster transparent management practices by the WPC, and improved communication between the WPC and users.

An ongoing focus on limiting amotivation and extrinsic motivations and on bolstering autonomous motivations could enhance member retention and engagement in RWS management and thus improve RWS sustainability. Such assertions are consistent with findings from Marshall and Kaminsky (2016), who argued that successful RWS projects focus on a range of higher-order motivations while limiting external

drivers. Future research should empirically test these ideas within CBM contexts to further refine our understanding of motivation in RWS.

CONCLUSION

In this paper, we have analysed the motivations of volunteer committee members for participating in water point management in the Malawi context. The motivations of 12 members in 6 locations were examined using qualitative interviews that were analysed using SDT motivation types.

The success of CBM approaches assumes that members will value an improved water supply and will hence be motivated to manage water services. Although the findings of this research support this assumption, it is only one type of motive experienced by members, albeit the most significant. WPC members who we interviewed for this research exhibited a diverse array of motives, and individual members were driven by multiple motives that, for some, changed over time.

Across all villages, autonomous motivation experiences included an interest in learning, an interest in creative activities associated with the role, the enjoyment of working with others, valuing the role's pro-social nature, and positive changes in self-esteem. Controlled motivations included participation that was focused on either avoiding shame or avoiding disappointing either users or NGO partners.

Motivations in CBM have historically been considered simplistically in the RWS academic literature. The findings in this research offer a basis for RWS practitioners to understand and evaluate the range of motivations that shape WPC participation, and to understand the implications motivations have on WPC participation. The positive relationship between autonomous motivations and improved performance across various professions and volunteer contexts that is demonstrated in extensive SDT research also provides a basis for the improved design of RWS programmes.

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