

**THE MENTAL STRATEGIES OF ELITE CLIMBING SHERPAS**

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## Abstract

In the research that has been conducted on extreme sports focus has been on single psychological skills rather than the combination of skills. Extending this limitation, there has been no previous study examining the psychological skills of elite high altitude climbing Sherpas of the Himalayan region. This research aims to describe and understand the psychological skills of high altitude climbing Sherpas as they tackle Mt. Everest whilst leading and supporting an entire expedition team. It further aims to compare and contrast the psychological skills of the climbing Sherpas with elite athletes performing across other high pressure environments. The study consisted of five Sherpas whom all have attempted to climb Mt. Everest, with four of them summiting between one and ten times. All participants were male and between the ages of 35-40. The study was conducted through semi-structured thematic interviews, via two interviews and a focus group. Questions were developed with reference to the seven skills of the ‘Wheel of Excellence’ (Orlick, 2008) used to measure peak performance in the pursuit of excellence. These skills include; focus, ongoing learning, commitment, mental readiness, positive images, confidence and distraction control. Interviews were conducted through English with the consent forms and interview questions translated into Nepalese as a reference for the Sherpas and translators who were present. The analysis of the data was conducted using both an inductive and deductive approach through coding on qualitative analysis software, Atlas.ti. The interviews and focus group were transcribed and analysed into codes through the process of thematic coding. Pre-formed themes based on the seven components of the Wheel of Excellence were used along with themes constructed from the data.

The results indicated that the Sherpas utilize extensive psychological skills whilst climbing Mt. Everest and integrated all aspects of the Wheel of Excellence into their pre-climb, actual climb and post-climb routines. Based on the results, the psychological profile of a high altitude climbing Sherpa was established and adapted from the Wheel of Excellence (Orlick 2008), with belief centred as the core component. This unbreakable belief is the most prominent psychological skill comprising of luck, dreams, rituals, and worshipping routines. From this belief, the Sherpas confidence is developed with them placing the utmost trust in their God in keeping them safe and regulating their arousal in the face of adverse conditions. The remaining psychological components include; mental readiness, evaluation, leadership, teamwork, focus and commitment. These components were mostly data-driven with common psychological skills between the Wheel of Excellence and the adapted wheel for high altitude climbing Sherpas being; focus, mental readiness, commitment, and on-going learning. Data-driven psychological components include; teamwork, leadership, the core component of belief and the facilitating factors of positive thinking and safety. All Sherpas accounted for the importance of the mental component over the physical component and placed an emphasis on their role as a leader and in the safety of their client as taking priority over summiting Mt. Everest. Furthermore, it is clear that as the Sherpas brave the extremities, they face many of the psychological skills necessary for competing across elite sporting environments, however they assure that there is no competition on Everest, you either live, or you die.

Keywords: Sherpas, Extreme, Excellence, Mt. Everest, Elite, Belief

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# 1 INTRODUCTION

Amongst the young, it's cool to be considered extreme, amongst the older, the resounding belief of taking risks is considered 'to be mad' (Watson, & Pulford, 2004). However, for extreme sports athletes whom are stigmatized as suicidal (Baron, Reardon, & Baron, 2013), psychotic (Watson, & Pulford, 2004), sensation-seekers (Gomá-i-Freixanet, Martha, & Muro, 2012), and even genetically different (Baker, 2004), their lives are all about taking risks in the face of death, and not only do they seek it, they love it.

Extreme sports, or high risk sports, have been defined as "those activities where a mismanaged mistake or accident would most likely result in death, as opposed to injury" (Brymer, 2005, p.i). Sports that fall into this category are many and include such as; hang-gliding, high altitude mountaineering, rock climbing, ice climbing, extreme surfing, parachuting, sky-diving, free climbing etc. Numerous researchers have attempted to develop theories to explain participation in such ill-fated sports. Such theories include Weinstein's' (1980) concept of 'unrealistic optimism' which fundamentally concerns people perceiving themselves and their future as being more optimistic than that of others (Harris & Hahn, 2011), where they believe they possess the capacity of invulnerability (Weinstein, p.806). Other theories that suggest the motivation of extreme sports athletes include such as Smith and Apter's (1975) 'reversal theory' which is underpinned on the fact that humans interact with the multiple stimuli of their respective environments, and Zuckerman's (1979, 1994) 'sensation seeking' theory which presents the idea that extreme sports participants are in the pursuit of specific sensations in the face of risk. These theories outline some of the reasons to why participants engage in these sports, but ultimately, not everyone has a motivation that justifies the depths of scientific research. For some, it's not a choice.

Lost in all this theory and befuddled by the knowledge of the Western world comes the race of people most certainly involved in extreme sport, but less known for their incredible feats. The Sherpa climbers pursue the highest peak on earth every year displaying unbelievable acts of skill, leadership, trust, loyalty, calmness, spirituality and kindness. Hence, the reasoning behind why I chose to research these incredible people through exploring the psychological skills behind how and why these people attempt the summit of Mt. Everest bearing their lives on the line for their clients every single time.

Throughout the bouts of research, there have been numerous theories that outline the importance of mental skills and strategies in the pursuit of excellence in sport. However, across the varying sporting disciplines there has been limited research in the study of psychological skills and attributes associated with high risk and extreme sporting environments. Particularly, this research aims to describe and understand the psychological skills used by high altitude climbing Sherpas as they tackle Mt. Everest whilst leading and supporting an entire expedition team. This study further aims to compare and contrast the psychological skills of the climbing Sherpas with elite athletes performing across other high pressure environments. This study is focused on Mt. Everest, as summiting the highest peak is considered to be one of mankind's ultimate physical challenges (Burke et al., 2010), and as my target population is the elite of the elite, it is only natural that I target the worlds' highest peak. Pursuing the ultimate sporting accomplishment in the world can be traced to many varying motivations such as; the pursuit of life goals and dreams, escapism, finding oneself, spiritual transformation, personal transformation, ambition, challenge (Burke et al., 2010; Brymer & Oades, 2009).



## 2 THE SHERPA PEOPLE AND THEIR MENTAL STRATEGIES

“People do not decide to become extraordinary. They decide to accomplish extraordinary things.” (Hillary, n.d.)

Often considered one of humankind’s greatest feats (Burke, Durand-Bush, & Doell, 2010) Mt. Everest is a daredevils dream and a sport extremist’s heaven. Ever since the first human footsteps were etched into the summit of the giant that stands at 8,850m tall in 1953, people from all over the world have come in their numbers to try and taste a glimpse of the glory that is Mt. Everest (Campbell & Johnson, 2005; Puchan, 2004; Brymer, 2010). Located in the depths of the Himalayas in South East Asia on the border of Nepal and Tibet, ‘*Sagarmatha*’ as she is referred to in Nepal, meaning “Forehead in the sky” (“Sagarmatha – Mt. Everest Expedition”, n.d.) or ‘*Chomolungma*’ as she is referred to in Tibetan or by the Sherpa people meaning “Mother of the World” (“Sagarmatha – Mt. Everest Expedition”, n.d.) is now a common ground for extreme sportspersons and keen climbers of all levels facilitating natural grounds for many high risk and recreational sports. Since Mt. Everest and the surrounding Himalayan valleys have so much to offer, there has been a notable increase in the amount of leisure or novice climbers and sensation seekers pursuing the world’s highest peak (Burke et al., 2010)

### *2.1 The Sherpa People*

The first expedition to summit Mount Everest was British-led by Sir Edmund Hillary and was first ascended on May 29<sup>th</sup>, 1953 by Sir Hillary and Sherpa Tenzing Norgay. Attached with this statement comes a quite melancholic reality that although no one actually knows who reached the summit out of these two climbers first, as they chose to let the world know that it was a team effort, most acclaim that the title is commended to Sir Hillary and not to Sherpa Tenzing Norgay. As Bott (2009) points out, that regardless of the many great individual feats the elite Sherpa climbers have achieved, Sherpa climbers are still comparatively under-recognized. Furthermore, Bott (2009) states that “...they [Sherpas] are recognized and ‘loved’ but rarely named as climbers in their own right” (p.290). On the contrary, mediocre, Western climbers enjoy unprecedented celebrity status upon summiting (Frohlick, 2004). Unlike their Western counterpart’s, adulation for the elite Sherpa climbers presents itself in the term “silent heroes” (Bott, 2009, p.290). From a European mountaineering viewpoint, the Western opinion is that Sherpa people are equipped with unparalleled endurance and desirable skill with a yearning to gratify their Western customers

(Frohlick, 2004). Furthermore, a Sherpa has been described as “a load-carrying porter for affluent tourists” (Frohlick, 2004, p.197). For this reason, they have become known as a “wish-granting” (Bott, 2009, p.294) culture. For Sherpas, albeit an incredible feat, climbing their ‘Mother Goddess of the Earth’ means much more than just reaching a summit. Instead for the Sherpa climbers, their primary motivation stems from much needed monetary resources (Bott, 2009). As Frohlick (2004) notes, Sherpas earn a lot more money working on an expedition than as trekking guides or porters. When it comes to fame, Sherpas create a ‘Ming Gurpu’ for themselves which means, a ‘big name’ which symbolizes local recognition (Bott, 2009). However, the Sherpas don’t recognize the nobility in risking their lives on Mt. Everest compared to their affluent counterparts and in fact maintain humility and modesty in each attempt (Bott, 2010).

Sherpa, meaning “coming from the east” (Droma et al., 2008, p.22) was designated to the people of the Himalayan region and represent a minority ethnic population that has resided there for almost 500years (p.22). According to the most recent Nepal census in 2011, the population of the Sherpa ethnicity is 112,946. It has been noted that the Sherpa people migrated from Tibet in the East and historically, they are thought to have lived at high altitudes longer than any other culture in history, extending 25,000 years (McIntosh et al., 2011). Throughout the years, ever since the first ascent in 1953, Sherpas have been prevalent and prominent members of every expedition that have dared to set foot on Mt. Everest (McIntosh et al., 2011). It is with no doubt that the Sherpa people are world renowned for their physical strength and expertise at altitude and that they have been considered as legendary with regards their endurance and strength.

## *2.2 The Physiological Edge of Sherpa Climbers*

Studies conducted on the Sherpa people have indicated numerous physiological reasons for both their elite performing levels at high altitudes and their ability to maintain a healthy and sustainable life whilst living amongst the heights of the Himalayas. Firstly, it is necessary to note that high altitude refers to those altitudes that are above 2500metres due to this being the point at which arterial saturation (SaO<sub>2</sub>) drops (Arai et al., 2002). Additionally, the human body becomes susceptible to distinctive natural stressors (Havryk, Gilbert, & Burgess, 2002) when it rises higher than 2800meters above sea level and in turn forces the body to adapt in any way that it can in an effort to resume normal bodily functioning as much as possible. The following paragraphs present

an overview of the many physiological changes that have developed in the Sherpa race to date which enable them to function at high altitude.

In a study conducted by Bruno (2014) measuring cardiovascular functioning in the high-altitude populations of the Himalayas, he presented findings that indicated there was a “unique phenotype” (p.50) existent in these populations. This difference in cardiovascular functioning compared to their Caucasian counterparts studied, indicated that the high altitude residents displayed larger arterial dilation, and variations in circulatory functioning and carotid remodelling. It was further noted by McIntosh et al. (2011) that the Sherpas displayed a lower metabolic cost whilst carrying loads when compared to their Caucasian counterparts, highlighting the difference in the effect that altitude can have on the physiology of Caucasians versus the locals of the Himalayas.

Research conducted by Droma et al. (2008) investigating the impact of high altitude on adaption in Sherpas, highlighted how the Sherpas’ elitism at altitude was acknowledged throughout the mountaineering world and attributed to their ability to “adapt and perform at high altitude so well that they are rarely affected by acute or chronic mountain sickness” (p.23). This proves an extraordinary advantage over their low lying counterparts who may be a lot more susceptible to altitude related sicknesses. According to McIntosh et al. (2011), the Sherpa people are innate with a “larger total lung capacity and larger vital capacity” (p.65) when compared to population samples from lower lying regions. This leads to the assumption that the Sherpas’ innate physiology and anatomy enables them to adapt favourably to higher altitudes however, it does not ensure their immunity.

Hypoxic conditions are ever present in high altitude residences and are defined as those conditions at which there is a depletion in oxygen levels and in turn humans experience lower levels of oxygen intake (Mason, 2000). A person’s adaption to these conditions at high altitudes may be the difference between one’s success or failure, life or death. In a recent study conducted by Tashi et al., (2014) which examined the genetic adaptations in high altitude dwelling Tibetans it was reported that “high altitude exerts selective evolutionary pressure primarily due to its hypoxic environment resulting in multiple adaptive responses” (p.27). The study presented the finding that “a left-shifted oxygen dissociation curve” (p.27) exists within the study population and that this has been shown to enable a more effective uptake of oxygen when subjected to hypoxic conditions.

The different changes that occur in the body when exposed to higher altitudes from even a few hours to months at height have different reaction rates and affect the different bodily systems (Vaernes, 2007). This process of being exposed to altitude for periods of time and trying to adjust your body to counteract the effects of the altitude is termed acclimatization (Vaernes, 2007). In support of this statement, Havryk (2002) notes that “on ascent, hypoxia and low barometric pressure immediately stimulate a variety of changes known as acclimatization. This ongoing process is still not complete months after ascent to high altitude” (p.192). According to Vaernes (2007), “adaption takes place over decades or is the result of being born and bred in a mountain environment” (p.192).

The condition of hypoxia can generally be divided into four categories; acute hypoxia, chronic hypoxia at moderate altitude, chronic hypoxia at high altitude and residual effects (Vaernes, 2007). Acute hypoxia occurs at moderate altitudes greater than 1500m and results in breathlessness and a rise in heart rate on exertion, impaired night vision and finger and mouth tingling around 4000-5000m with the body becoming unconscious above 5000m (Vaernes, 2007). Chronic Hypoxia occurs at moderate altitude also and results in impairment in the performance of learned psychomotor tasks at around 3000m with the time required to achieve optimal levels of performance in basic tasks increased (Vaernes, 2007). The decrease in normal functioning of the mental and physical conditions of the human body is a direct result of high altitude exposure for long periods of time and results in the following; loss of appetite, weight loss, tiredness, decreased recovery rates, petulance and deterioration in the willingness to start new tasks (Vaernes, 2007). Chronic hypoxia at high altitudes greater than 6000m results in the impairment of simple and complex psychological functioning, an increase in memory faults, deterioration in concentration levels which is related to an increase in distractibility and lethargy, the ability to persevere is diminished and communication functioning is impaired (Vaernes, 2007). However, despite the consequences of high altitude, it is also stated that if one has the ability to re-focus and get back into the zone following a period of distraction, then normal accuracy can be maintained in the accomplishment of tasks (Vaernes, 2007). This gives support to the importance of psychological strategies in counteracting the effects of hypoxia. Finally, the higher a climber ascends, the more residual effects of hypoxia they will experience and in turn the more severe damage they will do to their central nervous system (Vaernes, 2007).

In the study conducted by Mason (2000), information was presented on the varying degrees of acute mountain sickness (AMS). The different levels began at AMS and progressed to High Altitude Pulmonary Oedema (HAPO), then to High Altitude Cerebral Oedema (HACO), to malignant pulmonary AMS and finally to malignant cerebral AMS (Mason, 2000). This study concluded by stating that ultimately the level of mountain sickness that one will encounter, if any, will be dependent on the altitude, speed of the ascent and the amount of time spent at the heightened elevation.

### *2.3 Psychological Functioning at Altitude*

In comparison with elite climbers from lowland areas, it was discovered that the Sherpas have, through their generations, endured adaption that allows them certain protection against altitude related illnesses (Havryk, 2002). However, when compared with the general population, the Sherpa population has been shown to exhibit physiological profiles that are not equivalent to that of elite athletes but instead display physiological profiles comparable to that of a regular physically active person (McIntosh et al., 2011). This leads one to question whether people should be placing as much emphasis on the physiological component and not more on the psychological aspect of high altitude climbing. As McIntosh et al. (2011) quotes, “factors such as previous mountain experience and psychological drive may be more importance than basic physiological parameters in high-altitude mountaineering” (p.70). In a study conducted by Mason (2000) it was noted that “fitness provides no degree of protection” (p.105) against altitude related inhibiting symptoms which again supports the cause for the effect psychological functioning has on the push for the summit.

According to Vaernes (2007) climbers that venture to higher altitudes experience alterations in their neuropsychological functioning. This can include variations in memory, control of mood, special senses and sight. Interestingly, not only has this been observed in lowlanders attempting their faith on Mt. Everest, but also in residents of higher altitudes (Vaernes, 2007). This indicates a prime motivation for studying the psychological strategies of Sherpa climbers in pursuing Mt. Everest as although high altitude dwelling Sherpas may have many documented physiological adaptations, they too can still be affected by the intensity and complexity that high altitude exerts on the psychological functioning of the body.

Sleep deprivation is a detrimental consequence of a rigorous athletic career and may incur significant effects on athletic performance (Halson, 2014). These effects are both physiological and psychological and occur especially in “submaximal, prolonged exercise” (p.13). Additionally, lack of sleep can “influence learning, memory, cognition, pain perception, immunity and inflammation” (p.13). With regards the Sherpas, the relation between their pursuit on Everest and the essentiality of sleep in the quest to attain full focus, is ever prevalent. The climb to Everest may take on average two months to complete and includes trekking to base camp, and then onwards through to camp five where the summit is then attempted before returning (Burke & Orlick, 2003). Additionally, due to the extremity of hypoxic conditions and the requirement for physiological adaptation at altitude, it also confirms the use of submaximal and even maximal efforts on pursuit.

It is clear that as you move to higher ground, the uptake of oxygen is hindered immensely which counteracts the respiratory system and inevitably effects performance (Young & Reeves, 2002). Furthermore, as the altitude increases, the deficiency in oxygen becomes significant enough that “the oxygen uptake required for activities such as walking approaches maximal” (p.682). However, with the use of strategies for acclimatization, “submaximal exercise endurance increases 40% to 60% compared with exercise endurance on arrival at altitude” (p.682). Hence, on comparison, Sherpas can be compared to those of elite athletes suffering from the effects of sleep deprivation including both the physiological and cognitive aspects. Furthermore, one could argue, that in fact Sherpas are more at risk from cognitive malfunction at altitude because not only are they deprived of the benefits of sleep but also, the more hypoxic the conditions, the more that the processes of the memory are inhibited (Asmaro, Mayall & Ferguson, 2013). Further study is needed on the amounts of sleep Sherpas actually attain whilst on expedition with them requiring to rise earlier than their expedition team to set up camps and carry equipment to higher grounds. Furthermore, how they manage this sleep deprivation whilst continually monitoring and making effective decisions, whilst under hypoxic conditions, also requires further attention in the altitude psychology domain. Results could support the positive influence that psychological strategies have on maintaining full focus and reducing the negative effects of sleep deprivation.

#### *2.4 High Altitude Climbing as an Extreme Sport*

High altitude mountaineering is classified amongst the many high risk or extreme sports gaining mass popularity in modern day society. The terms 'high risk sport' and 'extreme sport' are used interchangeably throughout the literature exploring this domain, and therefore are also both used throughout this research. A variety of stressors were classified as characteristic of high altitude climbing; extreme environment conditions, lengthy treks with baggage weighing up to 30kg, organizational downfalls e.g. intergroup relations and individual stressors (Stück, Balzer, Hecht, Schröder & Rigotti, 2005).

In recent years there has been an influx in the number of people seeking to participate in the extreme sporting world. Many studies note the credible increase in participation rates and highlight the varying motivations behind such a desire to enter into the dangerous and thrilling world of extreme sports. One such study recording the prevalence of extreme sports in modern culture was reported by Campbell and Johnson (2005), in the UK, and found that more than 5% of the population were participating regularly and that a further 12% of the population were looking to pursue involvement. Coincidentally, it was reported that participation rates in the USA were also fluctuating with an increase by 244.7% in 22 years (Willig, 2008). Pain and Pain (2005) reported the astounding growth in extreme sports over more traditional sports, and specifically pinpointed that mountain climbing is enjoying unprecedented growth as one of the fastest developing outdoor pursuits. Furthermore, Brymer (2010) stated that the past 20 years have seen a substantial growth in participation rates and that they have surpassed the rates of involvement in other sports.

Puchan (2004) deems this growth in extreme sports as a symbol representing the current times in our world where people are seeking different methods of escapism from the monotony and standardization of everyday life. Burke, Durand-Bush and Doell (2010) also acclaim the motivational factors associated with the increased participation rates in extreme sports to be largely linked with the lifestyle of the modern world including; the pursuit of life goals and dreams, escapism, finding oneself, spiritual transformation, ambition, and challenge. According to Elmes and Barry (1991), due to the increased commodification of climbing on Mt. Everest, there has been debilitating changes in the leadership structures in place for expeditions. The Nepalese government has unlimited restrictions on people allowed to pursue the mountain and as a result, Mt. Everest has not only seen a steady increase in fatalities, but also it has seen a surge in the number of affluent and unskilled climbers attempting to summit

All this increased participation in what has been defined already as high risk and life threatening, calls for interest into the examination to why people are becoming more and more attracted to high altitude climbing. Pre-disposed conceptions on participation in extreme sports have been presented as a death wish and that participants are thought to be unstable (Brymer, 2009). According to Brymer (2009), athletes that willingly take part in extreme sports are inherent with the characteristics of “sensation seeking, pathology, youth, masculinity, narcissism” (p.2). In line with previous research, Zuckerman (1994) introduced the first theory of sensation seeking to explain the motivation to why participants enjoy and pursue extreme danger. Zuckerman (1994) defined sensation seeking as “the tendency to seek novel, varied, complex, and intense sensations and experiences and the willingness to take risks for the sake of such experience” (p.27). It can be noted here, that high risk sports are those consisting of inevitable physical and psychological risks accruing from the elements and unpredictability of the natural world (Legrand & Apter, 2004). Furthermore, in comparison with lower risk sports such as running or walking, high risk sports report higher levels of sensation seeking (Legrand & Apter, 2004). Zuckerman (1994) presented however, that participants engaging in sensation seeking were not in fact seeking a death wish, and instead their primary motivation is to seek arousal, and different extreme activities are associated with different states and levels of arousal. Therefore, risk taking can be concluded not to be the intention of the participant but instead is inherent in the decision to seek arousal and furthermore, it can be said that these participants accept this inherent risk in the pursuit of arousal but are not solely pursuing the risk (Zuckerman, 1994).

Legrand and Apter (2004) further present the idea that commercial adventurers engage in these types of activities not because of a certain mental state or tendency but that it is rather a question of situation. Harris and Hahn (2011) outlined the idea of ‘unrealistic optimism’ as a factor in the motivation behind sensation seekers pursuits. The phenomenon of unrealistic optimism is described as the notion that people have whereby they seem to believe and perceive their future as more optimistic than any other persons (Harris & Hahn, 2011). This fallacy in risk perception may account for both the increased participation in these activities but also may aid in explaining their associated increasing mortality rates.

A further theory which explores the psyche of extreme sports participants is the ‘reversal theory’ (Smith & Apter, 1975). In a study examining this phenomenon, the basic assumption of this theory was presented in relation to extreme sports participation. It was concluded that, when



a person partakes in these high risk sports which are inherent with environmental cues that induce great levels of anxiety, they firstly experience these high states of anxiety, usually at the most dangerous point, and then immediately following, experience euphoric feelings of excitement and happiness (Legrand & Apter, 2004). This basic idea assumes that sensation seekers are pursuing these feelings in high levels of both negative and positive feelings in order to create an overall satisfied feeling which ultimately can only be sought on experiencing both for the reversal theory to take effect. This effect has been termed as 'arousal transfer' (Legrand & Apter, 2004).

Brymer (2009) also describes extreme sports as those which are self-initiated by the participant, normally occurring in the outdoor, natural environment and the outcomes of which are bound by limited certainty. In the results of his research which reports the extreme sports experience, participants were presented as having a variety of different life qualities and skills in relations to five main emergent themes; commitment and skill, boundaries, risk, accomplishment and peak experiences. In relation to 'commitment and skill', participants were seen to display high levels of preparation whereby years upon years have been required in order train and plan. With regards 'defining boundaries', it was reported that extreme sports differ from others with death being the sole defining outcome of a mismanaged mistake in an extreme sport. With regards 'risk', participants were not necessarily shown to engage solely due to such constructs as sensation seeking. In the category of 'feelings of accomplishment and personal insight', participants of extreme sports displayed feelings of empowerment and were reportedly better at coping with life. Lastly, participants were seen to engage in extreme sports in order to fulfil 'peak experiences' which are the ultimate sensations and states of arousal that participants seek within these high risk sports.

In a powerful study conducted by Brymer and Grey (2009) on the relationship between extreme sports and the natural world, they presented the view point that in fact, the act of participation in extreme sports was "an expression of an innate human drive to conquer or battle against nature as part of identity formation or a demonstration of personal power" (p.137). In this study nature is seen as the "playground for exhilaration and natural highs" (p.135) where extreme sports are born. On one hand, Millman (2001) represents the opposing idea that extreme sports are a "demonstration of personal power...the epitome of naïveté and nihilism that stems from self-indulgence" (as cited in Brymer & Gray, 2009, p.137). Whilst on the other hand, Brymer and Gray (2009) display the holistic involvement of an athlete engaging in extreme sports, emphasizing that

participation involves revolutionary changes and experiences which target all three realms of the “emotional, spiritual and physical” (p.137) development of an athlete. Aspects of motivation associated with the participation in extreme sports can be therefore related to the idea that nature and the natural world can act as a facilitator to sensing elevated wellbeing and experiencing connectedness with oneself and the environment which many participants yearn for (Brymer & Gray, 2009).

### *2.5 The Psychological Profile of Extreme Sports Athletes*

Throughout the research there has been extensive research on the psychological skills of athletes in ‘traditional’ sports with a great lack in the area of extreme or high risk sports due to research solely conducted on motivational and psychological components to participation (Young & Knight, 2014). Employing psychological skills could be essential to athletes in high risk sports whose definition separates them from traditional sports due to the ill-fated, unreliable and inevitably dangerous environment that high risk sports are set in. Young and Knight (2014) indicate that by incorporating these skills into high risk sport training and preparation plans, athletes can greatly benefit and possibly minimize the detrimental effects that these sports can have. In comparison with traditional sports, psychological skills in high risk sports can ultimately be used for not only keeping strong mental composure in the pursuit of their goals, but also can be used for precautionary measure in light of their unstable environment. On Everest, there is no simply ‘getting off’, no matter the situation, one needs to be able to control their emotive states on Everest and this includes developing effective stress and coping skills for even the obscenest of disasters which one may face. Stück et al. (2005) presented a comprehensive list detailing the essential points to mountaineering success with the ultimate goals being the ability to self-monitor correctly and efficiently, reserve bodily resources in an effort to prevent exhaustion and know when the time is evident to retreat from the pursuit due to safety, and the development of a strong team cohort that includes facilitating team spirit, respecting boundaries and support.

In a further study exploring the psychological characteristics of high risk sport athletes, it was presented that psychological skills are required in an effort to achieve their goals but also safety within their pursuit. Young and Knight (2014) support the cause for psychological skills in addition to precise physical skills as essential to the development of an extreme sport athlete. They propose that “the psychological demands faced by risk sport athletes can range from heightened

attentional focus, diligence, to the regulation of emotional states” (p.2). If an athlete can achieve such psychological skills, then they may have an increased ability to control risky and unpredictable environments as well as develop essential stress and coping strategies which are essential in determining success on Mt. Everest. The results from the study on 229 high risk sport athletes, based on the Athletic Coping Skills Inventory (ACSI-28), indicated that they use psychological skills profoundly and extensively in their performances. Furthermore, their results compared to usage levels among traditional sport athletes and slightly less than results based on Olympic champions, with more experienced athletes utilizing psychological skills the most (Knight & Young, 2014). Other psychological skills noted as necessary in high risk environments included mental toughness (Burke & Orlick, 2003), confidence (Knight & Young, 2014), goal-setting (Kayes, 2004), mental preparation and refocusing techniques in moments of mental and physical fatigue (Orlick, 1996).

In research conducted on personality traits in Norwegian Everest climbers, it was found that they possess certain traits that are significantly different to climbers in general, sports students and military personnel (Breivik, 1997). In the study both the Norwegian Everest climbers and the Norwegian elite climbers were seen to possess superior levels of mental toughness and independency with lower levels of guilt and anxiety. In contrast with the Military recruits and sports students in the study, Everest climbers scored much higher in sensation seeking, curiosity, eagerness to endure hardship and natural highs, had lower appraisal of risk, and had greater levels of susceptibility to boredom. On further comparison with the Norwegian elite climbers, and due to the harshness of the extremities on Mt. Everest, it was concluded that this was the reasoning behind why the Everest climbers were superior in high risk sporting environments. The research presented that Everest climbers were more extreme with regards motivational factors, possessed lower scores in anxiety, worry and possessed greater maturity and emotional stability. With this in mind, and the cause to support the role of psychological factors in the extreme sporting world, this research gives rise to the question; if an athlete wants to compete in a high risk sport, should we be paying more attention to the psychological profile of the athlete in relation to the characteristics of the extreme psychological profiles of Mt. Everest climbers, overpowering the physical profile of a high risk athlete? This research aims to examine the extreme psychological profile of the most elite class of Mt. Everest climbers, the Sherpas, in which case the results could prove invaluable

in determining what extreme psychological skills are essential in possessing when pursuing participation at the highest level in high risk sports.

Conquering the world's highest peak doesn't come without a solid belief in something; whether it's a higher power, the pursuit of one's goals or holding on to a dream. For the Sherpas, belonging to the oldest sector of Buddhism, their beliefs and values emphasize mysticism and the belief that an array of both demons and Gods occupy every mountain (Sherpa – Orientation, n.d.). Coinciding with the research conducted by Midol and Boyer (1995) with regards the human relationship with the environment, they presented that mountains, and likewise other natural entities, are perceived as living objects, and can be both compassionate and treacherous at any given moment. In an effort to be at peace with nature it is necessary to embody and become one with the natural entity, like the Sherpas do with Mt. Everest. This practice allows one to encapsulate the intensity of their beliefs and spiritual practices both living on and in pursuit of the mountain. Drawing from people who have experienced the power of the Sherpa's belief it has been noted that "...many foreigners have been deeply touched by the Sherpa's commitment to spiritual concerns and the compassion and wisdom that Tibetan Buddhism brings to their life" (MacGillivray, 1998).

### *2.6 Mentally Preparing for Excellence on Mt. Everest*

In a study conducted by Orlick and Partington (1988), examining the mental links to excellence, the results indicated that mental preparation was essential in the pursuit of athletic excellence. McNamara et al. (2010) also presented the importance of incorporating mental skills into training in order to develop the best opportunity to achieve excellence. These skills included goal setting, self-talk and imagery. In relation to goal setting, Orlick and Partington (1988) describe that the Olympic and world medallists all were "incredibly committed individuals with clearly established goals for success" (p.111) with this goal being the most significant in their lives. If you compare this with the case of the Sherpas in this study, all of them expressed safety as their optimal goal on Everest, and their commitment to this goal meant life or death, therefore also the most important goal in their life, ultimately representing their life whether they reach this goal or not.

Goal setting, alongside quality of experience, was reported to play a significant role in sustaining the motivation of an athlete during climbing expeditions (Bassi & Delle Fave, 2010). In this study, the effect of the extremities of the Himalayas on goal setting and the quality of six

climbers' experiences was explored. Their primary focus was on goal-setting in the face of the harsh Himalayan weather conditions, and the impact that this had on their goal setting with the fate of their ultimate goal left in the hands of nature. It has been indicated that in the climbing context, "setting short-goals, relative to learning rather than performance, can have a useful influence in meeting climbing-related difficulties" (p.471). In contrast, long-term goals may also prove effective in the climbing context whereby they can "allow for short-term flexibility and prevent discouragement" (p.471).

In the exploration into the reasoning to what happened to cause such an organizational disaster as the 1996 Mt. Everest disaster which left eight people dead whilst being caught in a deadly blizzard, Kayes (2004) distinguishes between two types of goals; narrowly defined goals and broadly defined goals. He describes how narrowly defined goals are attributed with success by defining clear and systematic goals. Conversely, a broadly defined goal takes into account emotion, subjectivity, and contradictory solutions to problems are based on experience. In the case of Mt. Everest then it is clear that the broader the goals are, the more open an expedition team is to organizational disaster and life threatening decisions when compared to the structured and logical approach of narrow defined goals. However, as a result of narrowly defined goals, the Everest disaster occurred, with the sole goal being to reach the summit and little flexibility in re-arranging goal in response to environmental cues. With conflicting individual and team goals, and a lack of leadership ability in overseeing goals and making decisions based on circumstance, death was inevitable. Therefore, we must conclude, that both narrowly defined goals and broadly defined goals are crucial for inclusion into a well-organized group environment.

Burke, et al. (2010), investigated how climbers felt as they engaged in the climbing experience with their goal being to delve into the gap that exists in exploring how different level athletes sustain their motivation towards reaching their goals in such a high risk environment. The investigators categorized climbers into three levels of experience namely; novice, intermediate and advanced. The study presented the idea that depending on what level of expertise a climber was at, resulted in the extent of their goal variables. For novice climbers, their primarily extrinsic motivation for participating in the high risk pursuit of climbing Mt. Everest included; feeling accomplished, developing climbing skills, reaching goals, enhancing self-image, and escapism from everyday life (Burke et al., 2010). For Intermediate climbers, their motivation was focused around decision making, excitement and exhilaration (Burke et al., 2010). Contrastingly, for

advanced climbers, they displayed more intrinsic motivation in the following forms; helping others, self-expression, personal testing, challenge, goal mastery, decision making and wanting to feel more at one with nature whilst in the serenity and beauty of the mountains (Burke et al., 2010).

### *2.7 Sherpas as Athletes*

Whether or not they acclaim to the extreme sporting world, they most certainly are extreme sport athletes. Whether athlete is the correct term, is another question to be debated with a clear scientifically driven definition of an athlete not currently established (Araújo & Scharhag, 2016). If we take the Greek meaning of the term athlete, its original root identifies that of achievement and pursuing excellence, but over the decades the term has become diversified incorporating many new forms of 'athletes', and classifications of exercising and competing. Currently the definition in motion outlined by Araújo and Scharhag (2016) for an athlete states that the following minimal criterion must be fulfilled in order to be classified as an athlete; 1) one should be training with the aim of improvement in their performance, 2) one should be actively participating in competitions, 3) one should be registered with a sporting body, and 4) one should be devoted to their sport as their means of living.

In this case, when you compare a Sherpa with an athlete fulfilling these criterion, one could argue the standpoint of the Sherpa. A Sherpa climber learns of the technical knowledge and new technology in the field regularly in an effort to improve performance and effectiveness on the mountain in order to fulfil as much as possible the highest standard of safety. In the off-season Sherpas are continuously trekking lower lands and guiding expeditions to other popular Himalayan mountains. There is no such thing as competition on Everest, there is only the fight for survival. As Sherpa 1 stated in presenting the importance of support on Everest, competition is like a virus and there is no room for it on the mountain. The Sherpas are registered with particular climbing agencies and the Nepalese government and finally Sherpa climbers dedicate their lives to climbing, as climbing is their primary source of income for both themselves and their families. Hence, if we consider the four criterion that defines an athlete, we can also consider that the Sherpa climbers fulfil these conditions and in fact can be deemed an athlete, and therefore can be comparable to an athlete, psychologically and physically.

## 2.8 *The Climb*

Training and preparation for participation in high risk sports requires exceeding levels of physical skills in an effort to combat the unique and extreme physical challenges that such sports present. To reach the necessary level to participate safely in a high risk sport, comprehensive preparation and years of rigorous and consistent training is required (Young & Knight, 2014). In addition, psychological preparation and the development of profound psychological skills prior to participating in high risk sports could prove essential in preparing athletes somewhat to the inevitable uncertainty and spontaneity of the environments which they participate in with a heightened ability to control the risk factors involved and develop optimal stress and coping skills (Young & Knight, 2014). Therefore, excruciatingly precise planning and training is necessary in the preparation for the climb to Mt. Everest.

As described thus far, climbing to the highest mountain peak on Earth is a feat which requires unconceivable amounts of time, sacrifice, training and endurance both psychologically and physically. In an effort to provide the reader with an insight into the Everest climb, the following paragraphs will entail what is involved in the climb itself; the trek to base camp, camp one, camp two, camp three, camp four, the summit, return and likewise the acclimatization process throughout. Pursuing Mt. Everest will take approximately two months and somewhere between 30,000 to 60,000 US dollars with a Sherpa guide. There are two standard routes for climbing Mt. Everest, from the Nepalese south side and the Tibetan North side. Nowadays it is not permitted to climb alone due to Nepalese and Tibetan government restrictions. There are two primary seasons where attempts may be deemed as the safest times on Everest, pre-monsoon in April and May and post-monsoon in September and October.

A typical climb from the south side, the more popular route, starts in Kathmandu and a flight to Lukla airport is taken to start the onwards trek via Namche Bazaar to base camp at 5,545 metres. Along the way acclimatization takes place at various locations and at base camp, expedition groups must spend multiple weeks camped in order to attain the most effective acclimatization. Whilst the acclimatization is under way at base camp, the expedition Sherpas and elite expedition climbers set up ladders and ropes in the Khumbu icefall region of the trek which is infamous for its hazardous array of cracks, moving ice, and crevices. After the period at base camp, when sufficient time has lapsed for acclimatization to incur, climbers must climb through four more camps prior to accessing the summit. Climbers must ensure that the pace is kept to an

absolute minimum in an effort to reduce the onset of altitude sickness and increased stressors on the body. In an effort to ensure acclimatization, after a camp is reached, the climbers must then return either to base camp or previous camps for a period of a few days (Burke & Orlick, 2003). From camp two, climbers must move through Lhotse face where ropes are in place to aid the climb that lies on a ledge towards camp three (Everest, 2016). From camp three, climbers then proceed towards what is called the ‘death zone’ which is the point where expeditions decide whether they will make the final push for the summit or return to base camp due to excruciatingly thin air and dangerous weather conditions.

The final drive for the summit takes place from camp four where climbers are succumbed to await an opportunity where the weather allows for the safest ascent towards the summit (Burke & Orlick 2003). Once climbers reach the summit, a short period of time is permitted as the descent needs to begin as soon as possible to ensure reaching camp before the natural light begins to fade and weather conditions worsen decreasing your chances of survival and successful descent.

### *2.9 The Wheel of Excellence*

The Wheel of Excellence was founded by Terry Orlick (1996) in an effort to present the seven key psychological components required for the pursuit of excellence for personal success. The seven critical elements included; belief, positive imagery, commitment, full focus, mental readiness, constructive evaluation and distraction control. The wheel was developed based on years of consulting with and researching top level athletes. In the initial wheel, it comprised of two core skills; commitment and belief, with the remaining five components maintaining the outer section of the wheel.

As the years progressed since the first presentation of the Wheel of Excellence, multiple changes have taken place in an effort to improve the wheel to be as relevant and applicable to modern day athletes and demands alike. In 2000, the wheel progressed from the two factors of focus and commitment being the core components of the wheel, to three elements forming the central circle; commitment, focused connection and confidence. The remaining four elements forming the outer circle of the wheel were positive images, mental readiness, distraction control and ongoing learning (Coleman & Orlick, 2006).

In 2008, the modern version of the Wheel of Excellence was published after many years investigating the interactions between the seven critical components with not only top athletes, but



also high performing people who face many obstacles in their pursuits such as astronauts, medical surgeons, fighter pilots, coaches and more (Orlick, 2016). The new wheel consists of previous components but has a more profound emphasis on focus, being the sole component in the centre of the wheel. Orlick (2016) presented that having a strong and controlled focus is the foundation in pursuing excellence. Focus has become the most crucial component for success and its effects radiates out to the remaining six components which form the outer circle of the wheel and are; commitment, mental readiness, ongoing learning, distraction control, confidence and positive images. It is assumed that when all the components of the wheel are working effectively, an athlete has the highest chance of achieving mental excellence and ultimately, their pursuits.

Studies conducted using Wheel of Excellence as a viable framework for establishing mental distinction in the pursuit of excellence all support the seven components outlined in the wheel as necessary for inclusion in a mental training plan that aims for excellence (Burke & Orlick, 2003; Coleman & Orlick, 2006; MacNamara, Button, & Collins, 2010). In line with Orlick (2008), MacNamara et al. (2010) highlights the importance of incorporating psychological methods into practice. These include psychological skills such as imagery, goal setting and self-talk.

### *2.10 Summary*

There has been limited research on the psychological skills of elite high altitude mountain climbers and in high risk sports in general. Additionally, in the research that has been conducted on extreme sports, the research focuses on single psychological skills rather than the combination of skills (Young & Knight, 2014). Extending this limitation, there has been no previous study examining the psychological skills of elite high altitude climbing Sherpas of the Himalayan region. Studies currently exist on the physiological realms that fascinate researchers from around the world on what physiological properties exist within the Sherpa people that help them to cope whilst living at such a high altitude.

With numerous researchers posing reasoning to why participants engage in such high risk sports, examining the Sherpas, whose sole motivation is money, is a different avenue not currently explored. If we take away the motivations of seeking arousal, pursuing glory and escapism, fulfilling goals and experiencing risk, we are left with the simplistic motive of having no choice. Therefore, a possible, more clear psychological profile can be established into the purity of the psychological skills required to climb Mt. Everest. It is clear that the literature supports the cause

for exploration into the capacity of psychological skills that these Sherpas possess, when they compare physically to that of normal human beings. Furthermore, with the research in place that supports the use of psychological skills in traditional sports, their use in high risk sports could prove optimal also in facilitating both success and safety in their pursuit. Additionally, in an effort to explore the most essential psychological skills necessary for athletes competing in high risk, and high pressure environments it is necessary to explore and compare the psychological profile of an extreme athlete. Such is an extreme psychological profile as the Sherpa Mt. Everest climbers.

### 3 AIM

The aim of this research is to describe and understand the psychological skills used by high altitude climbing Sherpas as they tackle Mt. Everest whilst leading and supporting an entire expedition team. This study further aims to compare and contrast the psychological skills of the climbing Sherpas with elite athletes performing across other high pressure environments.

## 4 METHODOLOGY

### *4.1 Researchers Background*

Ever since I was a child, I was fascinated by all things sport and was an avid participant in multiple sporting pursuits, therefore, it wasn't long before the extreme sporting world also allured me under their spell. By the time I had finished my two-year teaching stint in the United Arab Emirates post-graduation, I had accomplished an array of feats in the extreme sporting world. These included; two skydives in Abu Dhabi and New Zealand, white water rafting in New Zealand and Sri Lanka and, black water rafting in New Zealand. However, one of my extreme sporting experiences influenced my life in a different way which led me in the direction to research in this field and in the depths of the Himalayas in particular.

The experience I refer to took place in April 2014 where I decided to take a leap of faith and instead of following the mass and embarking on a sun-set holiday I decided to try my luck in the extremities of the Himalayas. Those two weeks which I spent trekking to the base camp of Mt. Everest were the most invaluable of my life. I witnessed the sheer prowess and humbleness of whom I believe are the most giving race of all, the Sherpa people. Witnessing their passion and worship of the mountains surrounding their heaven-like environment which they call home, and hearing the tales these Sherpas shared of their feats and likewise devastation on Everest, inspired me to research these extraordinary people. I wanted to explore the minds of these resilient men and women climbers in an effort to seek enhanced knowledge in the mental skills and strategies that they use to counteract the struggles on Mt. Everest to reach the highest point on Earth.

### *4.2 Research Design*

Qualitative Analysis can be summarized as a “naturalistic approach that seeks to understand phenomena in context-specific settings” (Golafshani, 2003, p.600). Flick (2014) likewise defines qualitative data as being “applied to discover and describe issues in the field or structures and processes in routines and practices” (p.5). Both definitions are associated with the central aim of this study being to understand and describe the psychological skills that the locals of Mt. Everest use in their natural habitat. One of the aims of qualitative data analysis as outlined by Flick (2014) and coinciding with the aims of this research, is to place the experiences of the Sherpas as the main focal point. As a result, focus groups and interviews were the primary form

of data gathering where the Sherpas were facilitated in expressing their own subjective experiences and opinions.

This research took a phenomenological approach which has been described as an “opportunity to gain an understanding of the meaning of a phenomenon as it really is” (Fawcett, 2011, p.10), focusing on “the essence of human experience” (Nesti, 2011, p.285) and as analysing “the things themselves” (Eberle, 2014, p184). All these varying definitions of phenomenology directly relate to the research aim of this study where understanding the individual and their true psychological essence amongst the Himalayas was the goal.

The data collection was conducted through the use of semi-structured interviews. As supported by Creswell (2007), the use of interviews in a phenomenological study is the principal form of data collection. Both individual and a focus group interview took place. The focus group took place with three Sherpa participants and subsequently two individual interviews took place with the remaining two Sherpas. The decision was made to incorporate a focus group style interview due to time limitations and in response to the practicalities of the conduction of the interviews. As Creswell (2007) states, the use of focus groups is optimal when time is limited and in fact will present optimal data, as the Sherpas will work collectively in presenting their answers and ideas. Alternatively, Creswell (2007) further mentions that in the case of individual interviews, they may be less likely to share intricate details of their experiences and shyness may accrue alongside their confidence in articulation which is the case for many Sherpas with their lack of experience in expressing their perceptions verbally. To counteract this effect, prior to each interview, care was taken in developing positive rapport with all interviewees in an effort to facilitate an expressive and comfortable environment for all participants. Furthermore, in the case of the focus group interview, monitoring was undertaken to ensure that one Sherpa was not dominating the interview and that all Sherpas were involved. In addition to interviewing, field observations were also recorded on pre-determined observation sheets in an effort to record any informal cues or interviewers’ thoughts.

#### *4.3 Analysis*

Due to the delicate nature of the phenomenological approach and the need for the participants to describe and comprehend their experiences, it meant that in no way was the researcher allowed to influence participants’ perspectives or beliefs. Qualitative design was

therefore the only logical form of analysis with it possessing the underlying characteristic present in this study of exploratory research especially with converging aims of both this study and qualitative analysis being to “delve deep into issues of interest and explore nuances” (Hastie & Glotova, 2011).

All interviews were transcribed and content analysis was undertaken to establish the prevalence of the pre-determined themes and also to determine the data-driven themes that accrued. The transcription process was conducted via Atlas.ti, a computer program aimed at facilitating effective qualitative data analysis. The interviews yielded a total of 30,320 words and 46 pages of data. The themes that were constructed were partly data-driven and concept-driven based on the seven themes of Terry Orlick’s (2008) Wheel of Excellence. Content analysis was the preferred method chosen for analysis of the data as it is “reduces data, it is systematic, and it is flexible” (Schreier, 2014, p.170). On developing the codes for particular occurring themes, the researcher did not specify exact experiences as codes as Schreier (2014) also presented that in content analysis coding, “one will usually go beyond the specifics of any particular passage” (p.170) and instead categories will be constructed that relate to a variety of interrelating passages that may be somewhat different but subsequently categorized the same due to a “higher level of abstraction” (Schreier, 2014, p.170). Once the initial codes were subtracted, the coding process was reiterated and scrutinized numerous times to ensure the coding was relevant, consistent and accurate.

Due to its characteristic of ‘flexibility’, which dominates the style of qualitative content analysis, this method facilitates the combination of both data-driven themes and concept-driven themes in the development of codes (Schreier, 2014). This study largely relied on this characteristic whilst coding, through its exploration into the seven pre-determined themes based on the Wheel of Excellence (Orlick, 2008) and construction of data-driven themes from the analysis. This research therefore took both an inductive and deductive approach, combining to an abductive approach, in an effort to yield the most data possible from the study.

#### *4.4 Procedure*

A tentative schedule of the data conduction is presented below, in Table 1, which includes the people whom were present, the length of each stage of the data collection and the respective locations.

Table 1 Data collection timetable

<b>Date</b>	<b>Procedure</b>	<b>Present</b>	<b>Duration</b>	<b>Location</b>
19 <sup>th</sup> of August	Arrival in Kathmandu			
20 <sup>th</sup> of August	Focus Group Interview	Sherpa 1 Sherpa 2 Sherpa 3 Translator 1 Principal Investigator Research Assistant	2hr28mins  (38mins: part 1) (1hr50mins: part 2)	Kathmandu
26 <sup>th</sup> of August	Individual Interview	Sherpa 4 Translator 2 Principal Investigator Research Assistant	1hr7mins	Kharikhola
27 <sup>th</sup> of August	Individual Interview	Sherpa 5 Translator 2 Principal Investigator Research Assistant	31mins	Kharikhola
29 <sup>th</sup> of November	Individual Interview (Re-Interview and translation via phone)	Sherpa 4 Translator 3 Principal Investigator	1hr26mins	Jyvaskyla  (via telephone)
11 <sup>th</sup> of December	Individual Interview (Re-interview and translation via phone)	Sherpa 5 Translator 3 Principal Investigator	32mins	Jyvaskyla  (via telephone)

#### *4.5 Logistics and Participant Recruitment*

The logistics of the present study were challenging. As the researcher, I wanted the study to be conducted face-to-face in order to gain the true ‘feel’ from the Sherpas in their own environment, therefore it was necessary to travel to the Sherpas to facilitate this. Initially, prior to reaching Kathmandu, three Sherpa climbers were recruited through connections attained from a previous climbing trip to Nepal. However, other participants had to be gathered through word of mouth, connections and trekking to the Sherpas’ home villages in the Himalayas. As time was an additional limitation, and it was coming to the end of the monsoon season, which means pre-climbing season, many Sherpas were either in their home villages along the valleys surrounding Mt. Everest, in Kathmandu, preparing for upcoming expeditions or abroad.

The timing of the study was crucial to the successful recruitment of Sherpa and I was lucky to gather the final two participants, from the Solukhumbu region of Nepal, through trekking the ‘original base camp’ trek, the route which Sir. Edmund Hillary and Tenzing Norgay took in 1953, towards Namche Bazaar and onto Lukla. However, due to the atrocious conditions post-earthquake, most of the routes were impassable, very dangerous or unstable due to landslides and the lasting destruction. As a result, the trek took longer than desired and I was unable to reach Namche Bazaar which is a thriving Sherpa populated village. However, I continued despite the altered route and was able to progress through to Lukla

The research team included the principal investigator, a research assistant, a guide (and translator) and also a porter. The final 2 Sherpas were recruited by the translator and principal investigator who explained the study and gained the consent prior to interview. In response to agreeing to partake in the study, where children were present, I carried English educational materials and gifts for children along the trek and to the children of the relative Sherpa whom have lost many educational resources due to the devastating aftermath of the Nepal earthquake, 2015.

#### *4.6 The language*

Interviews were conducted though English and with the use of a translator, were translated across Nepalese to English and vice versa where necessary. Further challenges in the data collection stage not only included the extent of the language barrier but also the issue that in fact Nepalese is not the Sherpas traditional language. In fact, the Sherpa race speak the Sherpa language which still remains an unwritten language and according to Fisher (1990), “there are no indigenous



texts that could be used to generate a systematic transliteration into roman” (p.xv). On further investigation, it became clear that the most recent attempt to document the language has been made by Tournadre, Norbu Sherpa, Chodrak and Oisel (2009) in their publication entitled; “Sherpa-English and English-Sherpa Dictionary”. In this publication, Tournadre et al. (2009) state that “the Sherpa language is part of the Tibetic family which consists of at least 25 languages and more than 200 dialects” (p.21). They continue to state the existence of the Sherpa language and that it is fading with the passing of time as nowadays the Sherpa people are being taught predominantly through English and Nepali. Tournadre et al. (2009) confirmed that “many Sherpas have settled outside of the Solukhumbu area, mainly in Kathmandu” (p.22) and likewise abroad, and as a result “they and their children use the dominant languages of these areas more and more” (p.22). This alone, provided the rationale behind the researcher’s choice to conduct the interviews through both English and Nepalese to ensure that the effect of information being ‘lost in translation’ was kept to a minimum.

In addition, due to the opportunities for education within the Sherpa community, many Sherpas cannot read or write as was the case with one of the Sherpas interviewed. In an effort to ensure his full cooperation, his wife translated the study protocol to him and signed consent on his behalf. In an effort to combat a further lack of understanding or any miscommunication throughout the study procedures, all documents were translated into Nepalese for Sherpas to read and follow where necessary and possible (see Appendices). The use of the translated documents proved useful in facilitating a comfortable environment for the Sherpas in the case where they did not understand something and they had a tool to refer to. In an effort to facilitate the recruitment process and ensure that the Sherpas knew the procedure of the study the translator undertook this role in Nepalese. In an effort to avoid bias, psychological terms were not pre-explained to the Sherpas and instead were prompted to develop their own meaning and understanding. Where this was not possible, the interviewer and translator alike described the misunderstood terms or provided an example for the Sherpas to refer to.

#### *4.7 Translation Process*

Throughout the data gathering and transcription process, a total of three translators were involved. In addition, an official document translator was recruited prior to the study to translate the English consent form and interview guide to Nepalese. The three translators involved in the

data gathering stage were; a previous colleague who manages and directs his own trekking company, hotel and restaurants in Kathmandu, another Nepalese colleague who previously guided me to Base camp and this time, guided me on the research trek and lastly, a Nepalese colleague in Jyväskylä, Finland. Translators used in the study were required to translate directly into English what the Sherpas were saying. However, on transcribing the data, it seemed that in the last interview, with Sherpa 5, translator bias was predominant and in fact, altered the results significantly. As the nature of Sherpa 5, and all Sherpas interviewed, was extremely humble and compliant, on being asked closed ended and leading questions ending in examples such as; "...isn't it so?" etc., by the second translator in Nepalese, it was clear that the interview conducted with Sherpa 5 was mostly translator lead and deemed invalid by the researcher. As a result, and in an effort not to lose invaluable information, the interview was re-conducted with another translator via phone. Furthermore, to ensure the validity across all interviews in which that particular translator assisted, specifically Sherpa 4 and Sherpa 5, the interview conducted with Sherpa 4 was also re-translated.

#### *4.8 Participants*

As presented by Creswell (2007), by using the phenomenology method, participants must "all have experienced the phenomenon being explored and can articulate their lived experiences" (p.122) in order to ensure validity and transferability of the data. Therefore, set criteria was established to facilitate commonality across all the participants. Criteria for inclusion in the study comprised of; needing to have at least attempted to climb Mt. Everest once and being of Sherpa descent. All five Sherpas have attempted to climb Mt. Everest, are between the ages of 35 – 40 and are male. Sherpa 1 has attempted to climb Mt Everest several times but failed to summit, whilst all other Sherpas have reached the summit between one and ten times. All Sherpas have experienced unsuccessful missions on Everest and furthermore all Sherpas have climbed numerous other peaks above and below 8000metres adding to their climbing experience and subsequent expertise. The subject group was not limited to sole summit achieving Sherpas as the population of Sherpa climbers is not large and success on Everest is not abundant. According to the 'National Population and Housing Census 2011', the population of the Sherpa ethnicity is "112,946" (p. 154). Furthermore, as the Sherpa tradition of Mt. Everest dies due to increased immigration and education, so with it does the new representatives of Sherpa climbers.

#### *4.9 Materials*

Materials required for the conduction of this study included a number of voice recorders in three forms in an effort to ensure that at least one of the methods survived the harsh Himalayan conditions in monsoon season. These mediums included; voice recorder, tablet recording applications and MAC laptop recording applications.

#### *4.10 Ethical Considerations*

This study followed the ethical guidelines outlined by the ethics committee of the University of Jyväskylä, Finland. All ethical considerations were taken into account to ensure the participants safety. Participants were required to sign a consent form prior to participation which was available in both Nepalese and English. Where participants were unable to read or write, the permission sheets and information on the study was clearly outlined by a translator present. Where a participant was unable to write, an authorized signature was attained from a significant other. Participants were informed what their participation entailed and how the data was going to be recorded and utilized. Furthermore, participants were informed that they were allowed to refrain from the study at any time. Throughout the research, all participants were referred to as numbers to ensure anonymity.

#### *4.11 Trustworthiness*

Guba and Lincoln (1986) developed the fundamental criteria required to achieve the concept of trustworthiness within a study. These criteria include; credibility, transferability, dependability, and confirmability (Shenton, 2004). In order to achieve credibility within the study, a pilot interview was conducted with a recreational climber from Mexico. On conducting this pilot, some questions and modifications were altered to suit the knowledge and skills of the climbing community. This worked efficiently in determining the most effective path for questioning the Sherpas in order to gain the essential information required. Furthermore, the concept of credibility was also facilitated through the researcher's previous experience within the Sherpa culture from a previous expedition in Nepal. Initial recruitment of the Sherpa participants commenced through the use of contacts in Nepal. According to Shenton (2004), this increased knowledge and understanding of the culture is encouraged to create credible research. Within this study both interviews and a focus group were used which therefore, also adds to the credibility of the study

as by using these two different methods, it limits their individual methodological downfalls that otherwise may be present if they were conducted individually (Shenton, 2004).

Generalizability has been referred to as “extending the research results, conclusions, or other accounts that are based on a study of particular individuals, settings, times or institutions, to other individuals, settings times, or institutions than those directly studied” (Maxwell & Chmiel, 2014, p.540). Coinciding with the aim of this research, generalizability is achieved through the use of the Wheel of Excellence (Orlick 2008) which explores the pursuit of excellence in elite athletes. By comparing and contrasting the mental strategies of the Sherpas with elite athletes this study achieves transferability across other high pressure sporting environments. Dependability is achieved through the use of translated documents and having them readily available for participants to refer to when needed. With Regards confirmability, as much as possible the researcher did not interfere nor alter results based on previous experiences and personal biases.

## 5 RESULTS

### 5.1 Mountaineering Career

“...Everest is not like the other mountains...the Mt. Everest region is a killer region” - Sherpa 1

Throughout the interviews, questions focused on the mountaineering careers of the Sherpas and on what prompted them to climb Mt. Everest. Participants were asked questions such as; *How many years have you been climbing Mt. Everest? When was your first/last summit? Would you say that climbing is a tradition in your family? How many times have you summited Mt. Everest? and what do you do in the off-season, when you aren't climbing?* It is interesting to note that although they register Mt. Everest as a “killer region” and furthermore despite many of the Sherpas losing family members and friends to Everest, they still choose to climb, time after time

In order to gain a deeper insight into the motivation of Sherpas in climbing Mt. Everest, questions were asked which aimed to explore climbing in their respective families. There were mixed answers with not all Sherpas having generations of climbers in their families. Sherpa 1 stated that climbing in the Himalayan region where their Sherpa race was born and bred is a tradition and stemming from generations. He explained that a reason the Sherpa people climb is due to a lack of education but that nowadays there is more opportunities to work outside of the Himalayan mountaineering industry.

Soooo eh, yeah eh, it is part of job and eh part of generations to generations in our children. So, there are Sherpa people who live in the mountains and are really close to the mountains so, most of the Sherpas don't have very good education so eh...because there are not many schools and not many facilities. Nowadays there are schools in Khumjung. Still not many Sherpas. So, this is how you know em the fathers and the grandfathers you know em and eh...so...transport, so em, like this way looking for job. Traditionally, this is our tradition. So until now we are in this job. (Sherpa 1)

Contrastingly, Sherpa 2 and Sherpa 3 stated that their generations did not consist of climbers; “*our fathers and grandfathers are farmers*”. However, one can imagine that such farming tasks in the Himalayan mountainous region could be called climbing in itself. Sherpa 5 has a large family tradition with one of his brothers having climbed Everest 12 times, another one 13 times whilst his father was also in the trekking business. Sadly, Sherpa 5 commented on how

his brother lost his life on an Annapurna expedition. Lastly, Sherpa 4 also has a family tradition of climbing with his father having worked as a trekking guide and his elder brother also being a Sherpa climber.

A contrasting motivation was described by Sherpa 3 as being due to the sheer thrill and excitement of being on Everest, *“when we climb Mt. Everest first time, we feel very happy...because we haven’t been on the top before”*. However, he concluded by acknowledging that *“...we get very excitement and very happy and after the second time, third time it’s not like the first time, its normal like our job”*. Furthermore, Sherpa 5 outlines that incentives are incorporated to act as rewards for successful climbs: *“we are given some bonus if the clients can summit, they call it like summit bonus”*.

Participants were asked to describe what they do during the off-season. The climbing calendar for Everest consists of two seasons, Spring and Autumn, as outlined by Sherpa 3 and Sherpa 1, but is largely dependent on weather and natural circumstance such as the Nepal Earthquake of April 2015 which in its wake left the climbing season shattered and deemed over by the Nepalese and Tibetan authorities. All Sherpas expressed that during this time, when climbing Everest is off limits, they take part in small treks and lower height expeditions. In addition, Sherpa 5 also noted that he owns a lodge, a small hotel, which he maintains alongside trekking. In Kathmandu, Sherpa 1, 2 and 3 described how they used the off-season as a time to spend with their families, meet with friends and just do *“normal jobs”* (Sherpa 1).

## 5.2 Belief

*“...if It’s like only me that has to climb, then I would do it 20 times” - Sherpa 5*

The concept of belief was prevalent throughout the interviews. Questions which targeted this component of mental confidence included; *Each time you attempt to make the climb do you believe that you will summit? On planning for a climb, do you set personal goals? Do you have a support network when you climb? Can you describe the most challenging moment you have ever faced whilst climbing? How did you overcome this challenge? And do you believe in your abilities to overcome any challenges you may face on the mountain?*

Throughout the interviews a common theme of ‘inhibiting factors’ arose which focused on such things as the weather, the physical ability of the clients, equipment, traffic and pollution on Everest. The code entitled ‘inhibiting factors’ included anything that hindered the success of the

Sherpa and their respective clients in both summiting Mt. Everest and returning safely, with safety being the prime concern. Both Sherpa 3 and Sherpa 5 commented on the fact that if no clients were involved in the climb, and it was the Sherpa alone, they would definitely be successful on Everest. As Sherpa 3 discussed, *“if we don’t have our guest, not our guest, only with Sherpa, we can do it, yeah”*, Sherpa 5 also stated that *“it depends upon the clients and like if they are in good shape and they are like capable of summiting, then it happens, otherwise you retreat”*. In addition, Sherpa 5 also pointed out that *“you can’t force the client to make it successful”*. This recurring emphasis on safety and responsible decision-making appear in abundance throughout all interview coding.

### 5.3 Luck

*“...you need to be very lucky in these mountains” - Sherpa 1*

On asked the question whether or not they believe if they will succeed before they set forth on expeditions, some of the Sherpas spoke about the contributing effects of positive thinking and luck on Mt. Everest; *“...we thinking positive yes and no, you can’t guarantee”* (Sherpa 1), *“they can’t kind of like guarantee the success and not even a single time”* (Sherpa 4), *“always we thinking positive nothing you know negative things...”* (Sherpa 1), *“...whenever they start an expedition so they bear in mind, they think that they are going to be successful”* (Sherpa 5), *“...but they think when they start they think they will be definitely be doing it to the summit... they have good like hope and they think we will be a success”* (Sherpa 2), *“we wish and we will try to do our best and summit mostly all climbers... Yeah we think first, yeah that we will it do it, yeah, positivity, yes”* (Sherpa 3). From these answers it is clear that all Sherpas do believe, or try to believe that they will summit, but a lot of factors depend on the successful ascent of any expedition. In relation to ‘luck’, Sherpa 1 talked about how everyone needs to be lucky on Everest, not only the Sherpas themselves but also the entire expedition;

eh everybody needs to be very lucky, not only guiding in the group, you know the group eh members, the climbers need to be very lucky you know, that eh to summit, otherwise, eh, little mistake, little something happens, you have very little chance you know to not get to the summit, so it’s not very easy - (Sherpa 1)

Sherpa 1 continued to talk about how before an expedition he is praying in order to develop a positive mental state before climbing. He stated that;

...you know we pray for god in our Buddhist we in our Buddha Chomolungma, the Everest we call Chomolungma its mother of the Earth and we always you know pray for God in order to get good positive things and we wish that we reach but eh we can't make guarantee.

Furthermore, he expressed that “80%, 70% can make it but eh positively, 20%, 25% not you know, it depends you know, many reasons, many reasons”.

Contrastingly, even though Sherpa 3 also believes in the power of positivity, he also placed much emphasis on the technical and physical aspect of climbing in the pursuit of success on Everest by saying that he believes he can do it but prioritizes safety over success; “*first priority for the safety and second is our goal to summit and then in this case, yeah sometimes we em, em we have to check our body condition our physical condition and the condition of our guest, if eh both are okay, we will do it*”. Sherpa 3 placed a stronger emphasis on physical readiness especially when associating it with client success. He concluded by saying, “*we use oxygen above 8000m and then we try we fix the safety in everything, everything is prepared and we if our body, physical condition is good, we will make it, 100%*”.

#### 5.4 Rituals

“...we pray...in our Buddha Chomolungma, the Everest we call Chomolungma its mother of the Earth...” – Sherpa 1

All Sherpas expressed the use of rituals in preparation for and during their climbs on Everest. Rituals were seen to enhance and affirm the confidence of Sherpas in pursuing the mountain. Sherpa 1 noted that they “*always you know pray for God in order to get good positive things and we wish that we reach (the summit)*” and additionally that “*we believe still a lot of higher things*”. Likewise, Sherpa 4 also commented on the importance of prayer and worship; “*he really believes the rituals and like in those kinds of religious meets or religious practices and he does it*”. Coincidentally, Sherpa 4 also stated that; “*...okay I believe in God and he will take care of me and my team and we really didn't know how it goes but it will go well in some way*”. Sherpa 3 further supported the cause for belief in faith and rituals by saying that “*...we pray, always pray*



*for God and make eh more confidence in our self*” confirming the prevalence and significance of both faith and rituals in a Sherpas climbing routine.

### 5.5 Preparation for a Climb

*“...mental goes there, we keep them, we call this, ‘give me power’” - Sherpa 1*

In preparation for a climb, Sherpa 1 described the typical ritual that occurs in the preparation/pre-ascent stage of a climb;

Before we go you know, we have our you know priest, we call Lama, he will come, one week or two weeks before we go you know, all private house, and family, we do pray you know with eh, with eh the priest, the priests coming you know priests, study for us you know, good karma you know, good karma, to reach you know, a lot of things you the know the priests you know about one or two days the priests stay with us you know, even some lama we take with us to base camp as well to do the ‘puja’

Sherpa 4 also presented his faith practice;

Whenever they are appointed by a travelling or an expedition agency like eh from even from the advance money that they get so they do some worship that’s like way before like this eh the expedition starts and they go to a monastery and then they give some offering you know some offering to the God in the monastery and some amount to the Lama, Lama is kind of the priest of the monastery so they give some offering to that and even like before, so this is like kind of like even it can be months before they start the expedition and they do another rituals that would be like simply just some worshipping just before maybe a day or two before or even on the day before they start the expedition so they are like really believing in this stuff like they are.

Interesting to note in this account is that, Sherpa 4 used his advance money to give offerings to the Lama and to their Buddha’s as acts of reliance and prayer for a safe ascent and descent. Furthermore, Sherpa 4 stated that it isn’t only when a climb is approaching that he turns to faith, he is a season-round worshipper and prays regularly at his local monastery; *“even though he is in the business or not, he is doing some sort of worship in the village like in the local monastery he is doing some worships and prayers”*. The extent of engagement that the Sherpas are involved in

prompts one to consider that the Sherpa themselves are not disregarded from the fate of Everest and despite their prowess at altitude, they still respect and acknowledge the dangers of the ‘Mother of the Earth’.

Sherpa 5 acknowledged the importance of faith and rituals by maintaining the idea of belief as an essential component for success on Everest; *“they are doing some worship and some prayers and stuff like that especially in the monasteries”* and it isn’t only the Sherpa climbers praying for themselves, he also described how *“some of like families they also do it for them for their sake, say prayers for them and they do it even in the like the last worship some rituals their own local rituals”*. As Sherpa 1 already explained, Sherpa 5 confirmed the ritual of worship at basecamp where they begin their ascent on Mt. Everest; *“even in the basecamp (they pray) for their safety and for the success of the expedition”* and *“they invite a priest to the base camp a local priest and then all the Sherpas they gather all the team members they gather and then they kind of like do some worship or prayers together”*. Sherpa 1 illustrated a type of ritual that is usually performed at basecamp called the ‘puja’. He described the puja as a ritual performed at the *“opening ceremony”* at base camp and consists of; *“...the pray, the worship for the Gods, everybody before we have a good luck and eh, he (the Lama) puts some mantra”*. Sherpa 3 describes this *“mantra”* as a *“special power”*. As portrayed by Sherpa 1, the puja consists of;

...eh yak butter, and eh the flowers, rose flowers and some wheat and corn and rice and everything is kind of mix you know, eh mix you know eh, eh corn, wheat you know the seeds you know they mix up, and eh at the base camp we make eh some small token, token with the corn flowers beautiful corn flowers.

These flowers in turn go on to become a very important mental keep sake for the Sherpas, as Sherpa 1 depicted;

And eh the opening ceremony, you know the Lama, he puts mantra in the flowers. If you have something, eh feeling eh bad if you have some feeling you know eh bad dream, if you feeling you know something eh not very good, you can keep this you know this, eh this eh this mix, the mantra, where there is a power, the bit of the flower, the head and the stems, the lama puts with the eh you know eh the small token, the token means the small stone eh... if someone, the climbers, something feeling not good you know, not eh you

know you know initiative, the lama suggests; take this stone couple of piece for luck and then he can get the initiative back, you can get a lot of good luck.

He then continued to designate the significance of this token and presented it as a “*special power*” that they carry every day as affirmed by Sherpa 3. They added by stating that their “*...mental goes there, we keep them, we call this, ‘give me power’*”. Sherpa 3 confirmed that “*it gives us mentally a little bit more power and confidence and we feel more safety from any danger cases*”. This initiates the case for mental strategies existing in the Sherpa climbing strategy, maybe unknown to themselves, as it is a part of their culture that these ceremonies are performed and stems from their respect and reverence for their God. Both Sherpas attested for the feasibility of the ‘token’ with Sherpa 1 defending its case by declaring; “*If you do question how, that’s very eh, you don’t get it, it’s just trust you know*”. Sherpa 1 provided an example of the ‘token’ in action by describing its use in the case of an avalanche; “*...even if you get the avalanches fall like 10metres you still hold this on this is my power, I’m using my power...and it helps a lot*”. A characteristic of the Sherpa culture that arises from this belief is that of trust which both Sherpa 1 and 3 acclaimed to be the key factor in this ritual to work; “*trust*” (Sherpa 3); “*it’s just trust you know*” (Sherpa 1); “*Keep your mind in the one pocket and then trust*” (Sherpa 1). Other mental strategies that came to the fore, were that of meditation when both Sherpa 1 and Sherpa 3 explained that they partake in meditation rituals. Interestingly, Sherpa 1 described a type of meditation that he performs which includes the prominent sports psychology skill of imagery.

The concept of ‘trust’ is crucial in climbing on Mt. Everest and presents itself in many cases both across the physical nature and mental nature of the climb. Sherpa 1 confirmed the case for ‘trust’ as an important mental tool in climbing by ascertaining that one must “*...trust the trust, we trust a lot*”. He also expressed however, that the art of ‘trust’ is a core value of their culture and that they “*believe in reincarnations*”

Sherpa 3 similarly supported the importance of prayer and worships by describing his version of events prior to a climb;

When we are going to climb any mountain before climbing that mountain, we do eh, some, we pray, prayer for Buddha, prayer for the God, we request and respect for the mountain please let us go to climb on the top, safely, safely and eh we wish and to safely climb and

back, yes, back we wish, but we cannot say, we cannot challenge with the nature so sometimes yeah, it is not 100% so it is a very risky and very challenging job.

As with all Sherpas thus far, they have an inherent devotion to uphold the deepest respect for Mt. Everest.

### 5.6 *En Route*

It is evident that Sherpas not only turn to faith in preparation for a climb, but also partaking in prayers and subsequent rituals is prevalent in all components of the ascent and descent. Sherpa 5 speaks about finding the “*auspicious time*”. He told that “*after they worship the next day they find, okay so this time you should start so the priest normally says this so you start like this*”. The mere fact that they allow the priest (or lama) to decide when the ‘luckiest’ time for them to begin the ascent emphasises how much trust and faith they have by placing their entire expedition’s fate on their trust in God and their respective lamas. Sherpa 4 mentioned, that it isn’t just when a challenge arises that worship is conducted, “*they actually also do this kind of rituals and worships even on the way like when they are passing, going through some passes, mountain passes*”.

### 5.7 *Overcoming Challenge*

*“nature is nature; they kill or not who knows” - Sherpa 1*

Sherpas were asked about the most challenging moment that they had ever faced and how they coped with their respective challenges. Sherpa 1 described, in association with belief, that “*it depends a lot on the God you know*” whether or not you will be successful on Everest. He stated that even if he is physically prepared and is an experienced mountaineer with regards the technical knowledge in climbing, it doesn’t matter if nature strikes; “*if you got avalanches and the technical things then it doesn’t work, that’s why we have to trust for the God, pray for it and it gives a lot of power, good luck you know nothing happens*”. Additionally, he expressed that; “*if I am really professional, if I am maybe everything in technical knowledge, still I cannot guarantee my life*”.

Sherpa 3 similarly affirmed the idea of belief over physical skills and experience, like Sherpa 1, when he said; “*Ah yes, climbing skills, yeah, I climbed many mountains yeah since that fifteen years and eh til now and the mountain it is, it’s a very challenging and risky profession, mountaineering. So especially, we worship mountain as a God*”. Sherpa 2 added to the point of

experience being irrelevant in the hands of nature by proposing; *“there is coincidence, things happen if there is something that goes wrong, what can I do with my experience”*.

### 5.8 Dreams

Sherpa 1 and Sherpa 3 demonstrated the important impact of their dreams on their belief in success and fortune. Sherpa 3 stated that *“we really trust these dreams and the dreams come true”*. Sherpa 3 elicited how that in any case, and not solely mountaineering, that no matter what they are doing, the impact of their dreams is unequivocal in their daily pursuits. *“If we saw something in bad dreams, and we continue, and we don’t care we get some accident or some bad, happens some bad things, especially yes”* (Sherpa 3). Sherpa 3 further acknowledged the influence of dreams on his daily life:

...not only in the mountaineering sector, if any cases I am going to drink any new things like I am going somewhere to visit or travel somewhere if we saw that night, if we saw the bad dreams, we stop for a few days and or we pray or we pray something in our house. So its eh, we really trust these dreams. – Sherpa 3

Sherpa 1 described, that when he is climbing he gives a significant value to his dreams; *“...I believe more in our dream, my dream”*. Similarly, as Sherpa 3 told, Sherpa 1 also needed to come back and reassess his next move until he felt and believed he would be safe and successful; *“I need to come back and eh and eh, like eh more friends place eh more eh comfortable place to be gathering with the friends and talking a little bit, these dream things you know, so share with the friends a little bit and eh friends give a lot of positive things”*. This displays the support network of the Sherpa when they are in the face of uncertainty.

The following report is an account from the interview where Sherpa 1 portrayed his experiences with ‘bad dreams’ and how they have influenced him in the past;

Eh, sometime you know kind of you know in the dream, eh, eh, its eh, there’s eh, bad things happen like eh they, lets’ say, actually I dream you know, in my dream if I saw there was you know a huge river, huge rivers and there’s a bridge and eh in my dream if I can’t get across this bridge you know and the eh, eh, the bridge might be very weak, you know shaking or weak you know it’s not strong enough, in my dream if I trying to cross this bridge, this river by the bridge if I get success then I, I really feel my thinking is

positive, if I couldn't cross this bridge this river, because the bridge is very weak, I'm frightened I'm very scared, I cannot cross this bridge, the river then eh that makes me a lot of nervous, that is one of the dreams is bad.

Similarly, the following was documented by Sherpa 3;

Just recently, three months ago, Mt. Everest, before the camp 2 earthquakes, my friend he went to climb Mt. Everest, he was in base camp and his wife lives in Kathmandu, and his picture, photo in a big frame in his eh room in Kathmandu. Before come to earthquake, his frame, photo fell down and all cracked, the glass also all cracked. And next morning next day at 12 o'clock in base camp there is an earthquake and his husband is dead. Yes, yes. Our, our, his wife saw this kind of dream.

Finally, Sherpa 3 also acknowledged that it isn't just the Sherpas in the Himalayas that believe in the concept of dreams but that "*...they also trust for dreams, in Nepal*" indicating a link between dreams and the Buddhist religion across Nepal.

### 5.9 Cultural Phenomena - Modern Day Effect on Everest

*"...we never can say I am going to win Everest; Everest is Everest" - Sherpa 1*

As with any culture, come an array of beliefs, traditions and values and by no means does the Sherpa culture lack in this area. In fact, the Sherpa culture is inundated with rituals as already stated above and furthermore has its array of worship styles and philosophies that have a significant influence on every step of a climber's way. Sherpa 1 presented some of the cultural phenomena that exists on Mt. Everest and within both the Sherpa and mountaineering culture. He stated that on Everest, "*...there are climbers going up Everest years and the first time climbers, the Everest say welcome to you, you know, welcome to Everest, the second time, the Everest asking some climbers, here they go again they ask why you come back again?*"

With the habits of the modern world and the negative influence they are having on Everest, Sherpa 1 discussed this impact; "*So still, you know we are pushing the mountain as well, things that we do, too much pressure*". He stated that in no way can one "*claim this Everest*", and proposes that there is "*too much on Everest, too many people, too much rubbish and Everest is make very angry, if you were Everest, how you feel in this much rubbish?*". This indicates the

respect that the Sherpa people have for the mountain and highlights the devastating effect the modern world is having on Everest. Furthermore, it also acknowledges the belief of the Sherpas in Everest as a living entity and if one is to push Everest, Everest will push back. Sherpa 1 entailed how, when the snow is melting and the rubbish is prominent in sight that *“Everest is trying to show for people, clean me”*. He ascertains lastly, that we need to be careful in our pursuits of Everest because *“nature is nature”* and *“we are just human”* so *“we can never say I am going to win Everest, Everest is Everest”*.

Sherpa 1 discussed about *“the human, what they did to nature...global warming things...climate change things”*. He says that *“7 years ago people they have been talking about this eh global warming this eh you know climate change; we don’t listen in them”*. As a result, he states *“we can feel it”*. Consequently, he reports on the status of the Sherpas job in the future and comments that:

It’s a little bit sad because of the, our job is there you know, we are doing these mountain jobs and global warming makes it, all the mountains melting the ice now, in the future maybe 20 years, maybe 30 years it happens that there is no snow left, who will like to climb this mountain just for it? that’s why we are a little bit worried our job, the future jobs we wish nothing happens, we wish nothing happens, we are too late, but we will, clean Everest that is part of our you know project for...we are too late

### 5.10 Training

Due to the culture that persists in Nepal, Sherpa 4 discussed how the Sherpa people are considered to be *“the really physically capable [people] of the mountain eh climbing and stuff like that”* but readily admitted that; *“he’s like less or uneducated so in terms of like those kind of like educational skills and stuff like that he is kind of under privileged”*. As a result, the Sherpa people are seen as those that are *“adapted for the altitude and everything”*.

Sherpa 1 reverted back to the origins of his climbing and discussed his past and how it impacted his decision to pursue the mountaineering career path. He stated that in the past *“we are running with yaks, you know animals, in the high mountains you know, we are used to be up and down in the rock you know steep part...we don’t know how to climbing but we do how now, we do just go by two hands and just go up”*. Sherpa 2 also drew on his past and talked about when he was younger and initially didn’t think he would ever climb a mountain, but described how he lived

in a village at 2500metres and owned a yak farm at about 3500 metres and *“maybe twice of four times in a week, [we] go up and down to the yak farm”* and climbed his local peak of 4100metres *“three times, four times in a year”*. As a result, he claimed *“that’s why we are getting fit in altitude but still we are not thinking that we will climbing, that I will climb the mount Everest”*.

Sherpa 1 continued and claimed that in fact, *“in the long time eh the main Sherpas have been climbing in eh with eh without the trekking course”* and unfortunately this has led to many of their deaths due to inexperience and not possessing essential mountaineering skills. He also stated that many of these Sherpa deaths are *“actually not on the way up, you know on the way down where most Sherpas have been killed”* which he relates directly to the lack of training and that the Sherpas possess a lack of knowledge or *“bother”* when it comes to equipment that they are not used to using. Sherpa 1 then progressed to noting that a revolution in training developments appeared as a result of the first ascent to Everest by Sir Edmund Hillary and Tenzing Norgay in 1953. He told that changes were seen from the use of *“tree branches”* for support to a deeper focus and knowledge on the more *“technical”* side of mountaineering on Everest.

Sherpa 1 also commented on the climbers that come to attempt their fate on Everest and pointed out that until the *“Tenzing and Hillary times nobody knows what is climbing, people know only to get to the top”* and that that was how to climb. He stated that *“most people don’t know you know what kind of technical [skills] they need, what kind of gear they need, what gear is good for the mountaineers”*. Sherpa 5 affirmed the difficulty prior to developing specific mountaineering skills and knowledge that *“it [climbing] was really difficult because of his lack of trainings but now he got trained and it’s much easier”*. Furthermore, to support the developments in time, Sherpa 1 clarified that *“even the father [Edmund Hillary], they haven’t been used this eh the right gear, they didn’t try”* and that it wasn’t until after the first successful expedition on Everest that they were capable of bringing *“better, lighter, more reliable, stronger”* and the *“right gear”* on expeditions.

With regards advancements in technology, he acknowledged that in comparison to nowadays, *“of that time, not developed in climbing in the technology things”* and now with the *“very modern technologies it is better”*. Sherpa 5 described his training experience which was *“a month long training which was given by some French climbers about how to acclimatize to the altitude or how to kind of handle the altitude sickness and how to use those mountaineering gear”*. Sherpa 5 added that *“with that training and with like the experiences like that’s how he becomes*



*successful*". Lastly, Sherpa 1 attributes his ability to be able to attempt climbing on Everest to Hillary, Tenzing and all the past climbers and Sherpas "*who have been climbing without training*", he presented his sheer respect for all of them and he confirmed that nowadays, "*without right gear we wouldn't summit Everest, even to 6000metres*".

Sherpa 3 acknowledged the development of a climbing career and outlined the stages of progression involved in becoming a high altitude climbing Sherpa. He described that by the ages of 17 or 18 they would go to Kathmandu and search for a job. After securing "*some trekking job like porter, like kitchen boy...[or] sometimes we carry like, as a porter*" they then take forth on trekking expeditions and progress through promotions. He told how along this progression "*we have to support our body also, physically, mentally everything and economically*" which "*is difficult*". He outlined the progressive ranks as being "*porter, kitchen, Sherpa assistant, cook, guide and like this*". He lastly added that progressing through the ranks and gaining the essential experience is not easy and "*we did many struggles to get in this position*". Sherpa 1 also acknowledged the difficulty of progressing through the ranks by saying that "*step by step we got eh this you know mountaineers, it's not the easiest you know, it's not easy to get these positions, so I can say we crossed many hardest jobs from carry 60-70kg heavy load to until now*".

Despite all these training developments mentioned by the Sherpas, Sherpa 1 took a step back to realise the dark reality of mountaineering on Everest that is, no matter how much you are skilled, trained, experienced or equipped with the finest equipment and technology, "*the dangers are always there*" and "*I don't mean the mountain is easy now*". He says that its "*the same mountain*" but "*it's less dangerous now because of the knowledge*". Sherpa 5 added to the importance of this new knowledge and training developments in the prevention of accidents whilst mountaineering by stating that "*with trainings and like those kind of mountaineering skills you don't really face those kinds of accidents or situations, so those trainings and like eh, I mean skill development things are really important*". Sherpa 4 also acknowledged the importance of training by stressing "*the importance of the trainings, like eh, trainings regarding the use of the tools and use of the mountain gears*". To conclude, not only do these developments impact the risk on Everest but the training courses also facilitate the enjoyment and sense of safety on Everest constructed through developing experience, skills and specific knowledge; "*when you want to use this on the mountain, when you use that you are really comfortable you are really enjoying*" (Sherpa 1).

### 5.11 Climbing Goals

Sherpas were asked questions related to their goals, if any, that they set on a climb whether it be personal or expedition connected. Questions such as; *On planning for a climb, do you set personal goals? what kind of goals do you set? How does it make you feel when you achieve your goals? Do these feelings have an impact on your climbing?* were asked in an effort to gain an insight into the types of goals that Sherpas set for an expedition and the effect that these goals have on them whether they achieve them or not. Initially, questions were asked separately with regards a personal climb and an expedition climb, but after the first interview it was clear, that Sherpas never climb alone and are always part of a team when they climb. Therefore, the question was changed to focus only on expedition climbs.

All Sherpas presented the importance of safety as being a key factor on any climb. Sherpa 3 highlighted it as his primary goal; *“first priority for the safety and second is our goal to summit”*. Additionally, Sherpa 3 also presented the magic of the mountains as a motivator for him by describing:

If the weather is nice and very clear we can see around, surrounding beautiful mountains and looks at clouds, the white clouds are down there, you can see down and when we summit the MT. Everest, it's a very, if the weather is very nice, we see many white tops of small mountains down there. Yeah, we feel very happy.

Furthermore, Sherpa 3 also acknowledged the effect that climbing Everest for the first time had on pursuing his goal in summiting. He told that:

When we climb Mt. Everest first time, we feel very happy, camp 1, camp 2 we get happier, and when we are going to camp 2 to camp 3 we get more happier, when we go from camp 3 to the south col its more happy because we haven't been on the top before. So we get very excitement and very happy and after the second time, third time it's not like the first time, its normal like our job.

This highlights the change in goals over time and acknowledges that it doesn't remain personal and in fact becomes job related and impersonal as ones' climbing career progresses. Alternatively, Sherpa 1 takes his goals outside of the commercial world and stated that his goals

are “*like eh new mountains, like new mountains means where nobody has been, the first summit, those kind of mountains*” and “*to do the seven summits on different continents*” and that “*when I finish the seven summits, then I will stop*”. Sherpa 4 discussed his take on the goal making process and stated that he doesn’t really set goals and that instead “*they are like more flexible and it’s because eh these expeditions they are weather conditions and the health of the overall group dependent*”. This implies that personal goals cannot be set, as goals are group-dependent and the group comes first. In this case, he continued by saying that when it comes to competitive goals on Everest, “*you can’t really set any goals about timing or anything so you have to take everything by chance. and if everything goes right and you might set a record but otherwise you may not even succeed it*”. He finished by stating that goals are more “*nature dependent*” and “*at the same time like you can’t force any client so you have to go at their pace, at their comfort*”. Likewise, Sherpa 5 also expressed that his goals are dependent on the ability of the clients and client centred; “*if the clients are capable then we have to or we can take it up, but we can’t force them*”. This implies that Sherpas place the client at the centre of their climbing goals and that they are bound to the safety and success of the client and not to their own personal needs and goals.

### 5.12 Preparation for a climb

Throughout the interviews, the Sherpas emphasized the essential and important components involved in the preparation stages of an expedition on Mt. Everest. Questions were asked that focused on the preparation stages of a climb including; *how do you prepare yourself days, weeks, months before an expedition?*

Sherpa 1 began by stating that it is vital that a Sherpa is focused on the preparation of all the essentialities needed for an expedition; “*you need to focus for all the climbing gear*” and “*the important things are timing, gear, being eh well-equipped, you know well-equipped and enough food*”. Sherpa 3 focused on the importance of safety and also agreed that “*we should check very carefully safety*” and that first “*we have to [be] safe, safe for like clothes, we have to check gloves and the oxygen, hats, eh sunglasses, everything*”. Sherpa 1 furthermore noted that you need to prepare for the expected and unexpected, for example:

You are going to, you know have sick people...so eh you need to already prepare everything like, to go there on your trek in a time eh what kind of food your taking how

much food your taking... the proper medications things, documents it is very important you know and then eh the rest eh then in the camp.

Sherpa 1 commented on how to take care on a climb and prepare for taking care of both yourself and your team, he reverted back to training and told that *“you need to learn some technical things, you know, so how to get there, you know, you need to know, so what you need to go over the icefall, you are mentally okay and prepared”*. In summary, Sherpa 1 stated that you need *“some training course, some technical knowledge you need to have some gear, and then eh when you get eh, when you get this, everything, you are ready”* and *“if the climbers, if they know very well about the knowledge of mountains, the avalanches and things eh weather things you know and then eh more safe”*. Sherpa 4 and Sherpa 5 also accounted for the importance of understanding and abiding by the weather forecasts to ensure safety; *“studying those weather forecast then they...figure out if it is good enough to climb or wait”* (Sherpa 5), *“they kind of like get the weather forecast, analyse it, and then they finally suggest whether to move ahead or retreat or camp”* (Sherpa 4). Sherpa 4 additionally stated that *“the availability of a dependable weather forecast”* would help in the success of expeditions.

Sherpa 4 and Sherpa 5 commented on the steps involved in ensuring safety on Everest through preparation. Sherpa 5 explained that on the first day he is organising, collecting and purchasing all of the *“goods and climbing gears and like food...things required for the mountaineering”* and he said that he conducts this type of preparation *“around 15-20 days”* before starting. Sherpa 4 also outlined the preparation for an expedition including *“the food stuff and other and the collection of all these required materials for the expeditions”* but added that this is done *“by the expedition company”*. With regards insurance, Sherpa 4 further mentioned that *“the purchasing of different required insurance”* is very important and done *“with the help of the expedition company”*.

### 5.13 Group Cohesion

*“a team must be very well wonderful like flowers”* – Sherpa 1

As noted previously, trust is a very important and prevalent characteristic necessary for success on Everest. Within an expedition it is vital that cohesion is optimal between all members, as in the extremities, support for each other is crucial for survival. Sherpa 1 stated that he needs to

be part of a group where *“all people [who] are very kind, everyone must be very open, everybody needs to be very honest, everybody needs to be very close friend, everybody needs to...respect and each other love, this is very important”*. He emphasised that *“there should not be any competitions, should not hate each other...this is very bad you know eh this is let’s say, [a] virus”*, and acknowledged that this should not take place only in climbing, but also outside climbing; *“[teams] must be very well wonderful like flowers, and that makes very you know success...not only climbing but for everything”*.

Sherpa 1 talked about how it is important *“to gather with friends before we go there”* and furthermore that one should;

Check the weather forecast and check the amount of snow and what type of snow, what type of ice is there, what type of the rocks there, we need to know everything before we eh we continue, so we need to check that everything so we need to be safely down depending in that you know, we need to you know help [each other].

Sherpa 4 and Sherpa 5 both presented the importance of group formation. With regards group formation, Sherpa 5 explained that it is *“how many Sherpas”* there are and in addition how many *“new Sherpas”* there are *“that are not experienced”*. The Sherpas need to take this into consideration in order to focus on the correct and optimal *“positioning of the Sherpa when they climb”*. Sherpa 4 also reiterated the importance of the team formation by stating that:

The number 1 is like team formation...so how many Sherpas or how many people will be working for that expedition and eh also like the post or the role of each and every Sherpa or the responsibilities so what each and every one is supposed to do during the expedition.

To achieve this cohesion, Sherpa 5 described how *“the experienced one will be the leading one and the pushing one, behind and at the front. and those who are unexperienced or the young recruits...are somewhere in between”*. Sherpa 4 then acknowledged that the organisation of this is done through meetings held *“even a month before they start the expedition”* and also reiterated at *“base camp”*. He also expressed the value of team work declaring that *“we are in the same team...”* and a necessary strategy would be to work together in *“analysing stuff...making the right decisions...and deciding rightly in particular situations”*. Sherpa 4 and Sherpa 1 commented on

the environment that needs to be facilitated within a group in order for an expedition to be safe and for one to stay focused. Sherpa 1 stated that he has *“to be very comfortable”* and have a *“good mind”*, whereas Sherpa 4 also expressed that you need to maintain mental calmness and remain *“in a relaxed way at the comfort of every one team member”*.

#### 5.14 Mental Readiness

*“To struggle with the natures, to fight with the natures it is not easy, and you need to know already you have to learn about this”* – Sherpa 1

All Sherpas commented on the importance of mental readiness and its contribution throughout a climb. Sherpa 3 began by proposing that if *“you have interest to do anything mentally, you can do it, if you are not very interested by your mentally, you are basically screwed”*. This highlights the importance placed on being mentally involved in your climb and to be motivated to achieve. Sherpa 3 proclaimed that *“you should be prepared by mentally first...and [then] you can get your goal, yeah you can achieve that, what you want”*. Sherpa 1 added that you need to be *“positive, never down about what’s going to happen”*. Both Sherpa 1 and Sherpa 3 mentioned that having the *“interest”* is the motivation to persevere. Sherpa 1 noted; *“things happen that make it destroyed, the interest, so you have to prepare ready to know already to struggling”*. This basically translated to the need of one to prepare for the inevitable mental struggles that persist whilst climbing on Mt. Everest. Hence why Sherpa 1 affirmed that *“mental is the most important”* as did Sherpa 3 who stated; *“first of all, mentally”*. Sherpa 1 further complimented the importance of having *“interest”* by realizing that *“if here you don’t have interest you will never look in the climbing gear”* whilst Sherpa 3 acknowledged how ‘interest’ can be built through experiencing, for example; *“if you already been to Everest base camp...[and] comfortably and easily you got there...you can go higher”*. Sherpa 1 similarly confirmed that through experience one can develop their interest; *“you need to try first, small, first, like eh, less I want to do this...let’s say 4000metres this time, when you done this you say, oh I got this, nothing really difficult, I want to try...the 6000m”*. He attributed the developed *“interest”* to *“emotions”* by explaining that; *“feeling you know inside eh good then that’s emotions, they grow from there, the mental and that the mentally emotional is in you, you can’t eh stop...your interest goes up”*.

Sherpa 4 acknowledged the toughness of nature by mentioning that *“you have to be like daring enough, brave enough”* to face the adverse situations. He supported the use of rituals in

facilitating mental calmness as he believes that “*you need mental calmness, you need to be mentally alert and you have to be giving all the best that you can*”. Sherpa 5 affirmed the challenging conditions when facing “*the death zone*” and explained that; “*whenever they go on a mountaineering expedition, they go in such a way like eh, they have in mind so I’m not sure if I return back or not from this expedition*”. This type of thinking provides food for thought on whether or not Sherpas mentally prepare for possible death. One could assume that if this is the case, and they have mentally ‘accepted’ death, this lack of inevitable fear which is ultimately a distraction, could be the trick in overcoming fear and distraction in high pressure and high risk environments. Effectively, they may be facing fear with fear. Sherpa 1 further noted that “*if your dreaming about the accommodations like in Kathmandu it doesn’t work*” and that “*you have to already mentally prepare for that*”. He explained that Everest is all about “*enjoying*”, whether it be “*sleeping in a cave*” or if you have to go “*without eating...you have to still enjoy, because it is nature*”. He proclaimed that “*you need to know this before*” emphasizing the importance of mental preparation in all contexts. He concluded by stating, if you are looking for “*the good life...you can’t make it*”.

### 5.15 Physical Readiness

With regards the physical component, Sherpa 1 acknowledged that it “*is very important, but mental is first*”. He clarified that “*people who are very strong you can’t say, he can go summit... you can’t say that, you cannot make guarantee, I mean, you know, its mental and physical as well, first of all mental*”. Sherpa 3, whilst he preached the necessity of being mentally prepared, he also recognized the importance of being physical ready when he stated that if “*everything is prepared and if our body, physical condition is good, we will make it, 100%*”. On asking Sherpa 3 how would he know whether or not he was physically ready he explained that “*we feel our self...when we are walking, when we are climbing mountain we feel easy, we don’t feel any difficulties*”. Conversely, on being asked about the importance of being physically fit he referred to the use of oxygen and interestingly noted that with the use of oxygen “*it enables even those people that are physically unfit or kind of like not very strong*” to “*climb higher*” and that if you don’t take account for the weather “*then they can succeed*”. This stirs the idea of whether or not one needs to be physically fit versus mentally prepared, as with oxygen, the importance of physical fitness becomes insignificant. Sherpa 4 also identified the importance of being physically

prepared when he noted that one of the three things that he attributes importance to whilst mountaineering are; *“physical strength and then the technical and the mental skills”*. He believes that both mental and physical attributes are important as he explains that;

Both of them are necessary so if one is physically strong but he is like eh he doesn't have any strategy or anything like that then he is just like kind of physically strong then of course he can't succeed maybe like he is not very cautious then maybe he slips of the cliff and die or he is very careful and he is not strong at all physically then of course it is impossible to go up, go ahead as well.

### 5.16 Support

*“we help each other very much, we trust each other very much, we love each other very much” – Sherpa 1*

Support is a factor that accrues dominantly throughout the interviews establishing a crucial component of success on Everest. Sherpa 1 portrayed that *“if I am going myself, alone, so it can be very dangerous”* because for example if you were to *“lose conscious there, I don't get help, I can die you know”*. He affirmed that *“they need to at least know two people...not alone that eh is very dangerous”* because in the case that you do encounter danger you have someone who *“can take you the medication or whatever he can do, to save your life”*. Furthermore, he also commented on the reliability of the support by saying that one should go together with *“good friends, good help friends, who know their climbing”* and who you can *“trust”*. Otherwise, he noted, *“with new people [it] is very complicated”* as he continued saying that *“a new team could [have] a lot of tension”*.

Sherpa 2 acknowledged the importance of support also and mentioned that when embarking on a climb with other Sherpas, *“each other does supporting for each other”* and confirmed Sherpa 1's point that *“normally for the Mt. Everest expeditions you will be never solo, never alone”*. Sherpa 2 also commented on the need for support through team work *“to make a way or something they do have a support, a team”*. He provided the example that *“if he is trying to make the way, so he needs one supporter to stay together to fix the things and all”* and concluded by stating that *“without supporting there can be too much risk”*. Coincidentally, Sherpa 5 also noted the importance of team support and stated that *“it's all about their own colleagues whom they can rely on in terms of any kinds of emergencies...so they are helping each other, the teamwork and*



*the cooperation among the Sherpas*". Finally, Sherpa 1 also acknowledged the expedition team including the *"kitchen, cook, assistant Sherpa...and em a few other Sherpas"* as the support team and Sherpa 5 validated their importance by describing the difficulty of helping someone climb Everest and that they too *"need a helper...to carry your stuff...oxygen cylinder or extra food or tent or different stuff"*.

### 5.17 Evaluation and Ongoing Learning

Post climb, having a support network to reflect on experiences is important for the emotional recovery of the Sherpas, especially in the cases of unfortunate events on Everest. Sherpa 1 validated this comment when he discussed that *"there is many you know small accidents...sometimes you have a big emergency as well"* and the Sherpas consider to *"leave this job"* because *"it is dangerous"*. However post-climb Sherpa 1 described that they *"talk together with our friends and we gather again and talking about climbing then we get the beat again"*. He confirmed that *"this is eh a lot of support for us"* and a *"positive support"*. Sherpa 5 also supported the *"sharing of experience"* and noted that *"it doesn't matter if they are like junior or non-experienced people, like for every climb, those people who have returned so you share their experiences and you talk about it and learn from like anyone and everyone"*.

On a successful climb however, Sherpa 1 described how they are provided with mental support though the celebrations and everybody saying *"wow, you done good"* and rejoicing their successes. Sherpa 4 agreed by stating that they celebrate *"the success of the expedition like maybe having a small gathering or a party"* to not only *"make the guest happy"* but also *"to celebrate their time together"*. Sherpa 4 reiterated the importance of evaluation and explained how:

Right after expedition they kind of like gather in the base camp especially with their colleagues and discuss about their stories, they share their stories and all the struggles that they have been through up in the mountain.

He also described the scenario of a serious accident whereby the support is transferred to the *"rescue company or their own expedition company and then they help"* but in any case, he pinpointed that mainly *"it's your own colleagues whom you rely on, whom you depend on in every situation in every kind of different kind of need"*. Sherpa 5 confirmed that in the cases of major

rescues they have to “*reach the Kathmandu people for rescue operations*” but otherwise “*it’s only among us*”.

#### *5.18 Full Focus and Distraction Control*

*“If we will live we will live together and if we die, we will die together” – Sherpa 4*

Focus is an important component in a Sherpas psychological strategy on Mt. Everest as one foot out of place and you could be in deaths path. Sherpa 1 described that it isn’t just the obvious and main components of a climb that one has to prepare and focus for and that in fact it is the “*little things also*”. The Sherpas were asked questions such as; *How important is it for you to stay focused on a climb? What do you focus on when you climb? What would happen if you were to lose focus for a long period of time? When you encounter these challenging moments, what do you do to stay focused, what do you focus on?*

All Sherpas acknowledged the importance of maintaining focus throughout a climb. Sherpa 1 stated that “*it is very important...because it is very safe*”. Sherpa 2 reiterated the necessity of keeping constant focus as “*if he is not focusing on his climbing, it can be other problems, em lost way or something...it can be very dangerous*”. Sherpa 5 stated that “*it’s important to stay focused*” and that “*he has to focus on climbing on all those things affecting him*”. Sherpa 3 affirmed that focus is “*very important because our profession is climbing mountaineering and trekking and [when] I go to climb any mountain we should focus and we should very take care of what we are doing*”. Finally, Sherpa 4 additionally confirmed the significance of focus and notes that as a Sherpa guide you must “*take care and I mean like focus on the safety of everyone*”.

In the preparation stages, Sherpa 1 noted that it is essential to focus on routine procedures such as; “*you need to focus for all the climbing gear*”, “*the important things are timing, gear, being eh well-equipped, you know well-equipped and enough food*”. Sherpa 4 also confirmed that supervising equipment is essential in ensuring safety; “*if they are using the climbing gears and other tools whatever tools are necessary, [if they are] proper or not*”. All the Sherpas noted the importance of ensuring the safety of the clients, even over the safety of themselves with safety being the ultimate goal over reaching the summit. Sherpa 5 discussed about the necessity of monitoring the health and physical condition of the climbers; “*sometimes like some of the colleagues might get sick...so there is nothing more important than staying focused*”. Sherpa 4 also mentioned the importance of monitoring the health of clients by revealing that “*also they have*

*to figure out if they are suffering from the altitude sickness*” as in fact climbers often ‘reject’ or ‘pretend’ that they do not have it in order to continue to the summit which can be life threatening. He also confirmed the idea that Sherpas place the client first when he stated that *“it’s not only about the self but you take care about other people as well”* and that *“whenever you climb you like, you kind of consider the other peoples’ abilities and then go ahead”*. Sherpa 2 also discussed the importance of client safety by saying that *“the most important is the safety and he’s saying that always and always and always it’s just for safety”*. Additionally, Sherpa 4 expressed that as a Sherpa you must *“take care and I mean like focus on the safety of everyone”*.

In the case of an emergency situation, Sherpas commented on the strategies that they undertake in ensuring that all of their clients and themselves are safe and how they maintain focus in these extreme and crucial moments in the bid for survival. Sherpa 1 conveyed that you *“should not lose the concentration, concentration is very important”* and that if you are the one leading the group then *“you should not eh be shocked, should not lose the concentrate”*. In the case of emergency Sherpa 1 also declared that *“first of all, safety”* is a priority and that *“we just eh, forget eh the climbing”*. He presented the necessary steps for an emergency by stating that, *“we need to be as wise as possible”* and that the first thing that one must do is find out *“how to save from cold, how to save from avalanches, how to save from any kinds of injuries”* and find a *“safe place”* after which *“dependent on time”* and *“depending on our food or any problems in the group...we keep going...to get back to base camp”*. He added that it is necessary to *“think positive until you are you are okay; you are safe with everybody”*. Sherpa 2 also confirmed that in an emergency, *“they are just trying to move on to the camp or somewhere else where they can feel safe”* emphasizing safety as the key factor in determining the decisions made in an emergency situation. Sherpa 3 asserted that *“the main thing is just to...survive, our self and our guest”*.

In the aftermath of the most recent 2015 Nepal Earthquake, Sherpa 4 described the life-threatening experience on Mt. Everest when the earthquake and subsequent aftershocks struck. In the face of death, when the entire expedition team were struggling for life, Sherpa 4 as the leader maintained his focus and heroically and continuously displayed his dedication and commitment to his clients whilst he tried to assure them; *“if we will live we will live together and if we die, we will die together”*. In the aftermath of an emergency situation, Sherpa 1 told that this is the time when you need to focus on making *“new decisions”*, counteracting *“new problems”* that may have arisen and *“then we continue our climb”*. He also stated that as a leader, it is important that you *“don’t*

*lose your mind*” and *“just be concentrated, do your right things positive”*. He pointed out that it is vital that you don’t let your clients see that you cannot handle the situation:

Don’t say “oh, it is dangerous”, not anything like that...[you] should not make a noise for others, so you have to make it more positive do positive things, ‘it’s okay, you are okay, your positive you are safe nothing is going to be happen’.

Sherpa 2 commented on factors that represent distraction control such as sticking to the plan; *“so what is their mission, so they are just focusing on that”*. By maintaining a deep focus, he is also counteracting the effects of losing focus due to a possible distractor; *“he’s focusing on his climbing and not looking at anything else so just focusing on his climbing”*.

### 5.19 Imagery

On the topic of imagery, Sherpas were unclear as to the meaning of the skill and developed their own idea of what imagery was through the concept of ‘imagination’. Sherpa 3 stated that *“before climbing, eh we imagine”*. On asking him, what he ‘imagined’ he described *“the good view and yes, the snow, sun, the mountains”*. Sherpa 1 expressed his use of imagery as a positive reinforcement during difficult trials; *“when you have a really panoramic view you can almost forget everything in this difficult moment in this hard moment, everything you forget”*.

Sherpa 1 discussed the idea of imagery as being a method to anticipate the danger that lies before them on a route by saying that they:

...remember eh the, the, the good you know beautiful panoramic scenery, hard moment, difficult route, eh we are able to image that before we go, you know what to do its just how to eh fight with this like eh difficult moment.

Sherpa 3 enforced the importance of using imagery as a method to counteract and anticipate danger by declaring that;

Its eh support us after when first we climb, we get so kind of, too much educated and second time it gives eh us how to eh us more easy and more support where is dangerous, where is safety, yeah it can really it helps us.

Sherpa 1 does clarify however, the stark reality of the mountain and the unknown usefulness of imagery in the ever changing and extreme conditions;

But it can be happening you know the mountain way is not always there, same way, it can be changed the route is changed you know, every day there can be, there is snow, you know ice falls there is a camp site, a good camp site today maybe next couple of days later there is no good camp sites, it's can be you know, pushed down that's why eh you can't make guarantee 100%.

Furthermore, Sherpa 2 added that:

Normally em there is the route map...what they see and I mean what they have to climb, the path and to go from here to there and there to there, and there are all these kinds of figures and already the danger feature already like danger feature in their mind about okay from this place we can see this and that and that.

Some of the Sherpa discussed the idea of imagery being more beneficial the second time around and is predetermined based on previous experience. Sherpa 1 said that:

The second time, we got a lot of help, because we know already, we know already the dangerous part, we know already you know the good place to stay or not, that's why there is more confidence for us, so more easy [and] comfortable.

This presents the idea that the interlinking of imagery and previous experience provides confidence among the Sherpa climbers. However, Sherpa 2 also confirmed that even though previous experience acts in their favour on the mountain, "*still there is danger feature*" and to counteract such difficulty, "*they picture in their mind a bit before they reach these danger points*".

For first-time climbers on Everest, imagery is not based on previous experience and in fact, Sherpa 1 explained that the imagery is sourced from colleagues; "*the imagines comes from the friend you know the friend who would be already there*". He expressed how his "*friend who would already be there talks about the camp 1, about the camp 2, the south col, you know...they telling the history*" which in turn develops the "*interest*", or 'motivation' within the Sherpas.

## 6 DISCUSSION

The aim of this study was to describe and understand the psychological skills used by high altitude climbing Sherpas as they tackle Mt. Everest whilst leading and supporting an entire expedition team. It further aimed to compare and contrast the psychological skills of the climbing Sherpas with elite athletes performing across other high pressure environments. The data was collected through two interviews and one focus group using a semi-structured interview guide developed using the seven components of the Wheel of Excellence (Orlick, 2008) namely; focus, ongoing learning, commitment, mental readiness, positive images, confidence and distraction control.

### *6.1 Mentally Climbing Mt. Everest*

The results from this study indicate that the Sherpa climbers both possess and practice mental skills which are vital for success, throughout all stages of a mountaineering expedition on Mt. Everest. Across other elite sporting environments where high pressure and stress are prevalent mental inhibitors to athletic success, the importance of mental preparation and the incorporation of mental skills into performance has been researched and proven essential (Weinberg & Gould, 2015).

All Sherpas agreed on the importance of the mental component in climbing Mt. Everest. Like elite athletes in other sporting disciplines, the more successful athletes take part in regular mental training and therefore are mentally prepared to handle an array of factors that may inhibit their performance leading up to and during competition (Gould et al. 1999). Research indicates that incorporating psychological skills training into practice during the development phase and when an athlete is learning a new skill can significantly improve performance (McNamara et al. 2010; Orlick, 1996; Waskiewicz & Zajac, 2001). Sherpas also believe in the importance of possessing a strong mental attitude, however whilst they proclaim its essentiality, it was clear that they are unaware of the different strategies, their names, their use or how to apply them effectively. In addition, whilst training for a climb, the Sherpas solely focus on the physical and technical aspects of climbing whilst the psychological training comes down to prayer and mental resilience gained from experience and growing up in the harsh Himalayan environment. Most skills and strategies that they use whilst climbing can be translated to primary psychological skills. However,

it was evident that the most dominant psychological skill that the Sherpas themselves emphasized were those of belief, confidence, positive thinking, mental toughness and commitment.

Durand-Bush and Salmela (2002) investigated the process of development and maintenance of expert athletic performance. They interviewed 10 elite athletes whom have all won no less than two gold medals at separate Olympics and/or World Championships. An important result focused on the impact of the coaches on the athletes. The study recognized that mostly, the athletes worked with coaches that “assisted them in refining skills and developing optimal strategies for competitions” (p.165) and whom were “extremely knowledgeable, trustworthy, well-respected, and caring” (p.165). The Sherpas commitment to the safety and success of each individual expedition member can be characterized as the epitome of selflessness. They are the locals of Mt. Everest and extremely knowledgeable in the Himalayan environment and are therefore world renowned for their mountaineering competencies at altitude. Furthermore, all Sherpas noted the importance of training and the selection process each Sherpa goes through in order to be eligible to lead an expedition or even be a member of an expedition team. Training in the technical aspects of climbing is essential for all Sherpas in facilitating their knowledge on Mt. Everest. Additionally, their evaluation practices ensure their competence in developing optimal routes and strategies for climbing through ongoing learning. Hence, it is possible to compare the Sherpas to the top Olympic coaches in this study and conclude that they possess similar characteristics.

A further study by Orlick and Partington (1988) reported that elite athletes were most successful when their coach was responsive to their needs, calm in crucial moments, positive, supportive, organized, confident and had the ability to set reasonable goals respective of the athlete. Sherpas can directly compare with the characteristics of the elite level coaches here as they to possess all these characteristics in an even heightened pressure environment. The results of this study presented how the Sherpas responded in crises situations and their strategies for overcoming these challenges. Sherpas noted the importance of remaining calm, not losing concentration and focusing on the safety of all. Sherpa 1 described one strategy that he uses to retain his concentration and calmness during moments of struggle. Through using a mental cue, in the form of the puja in his pocket, he transfers his mind to there, which reminds him to refocus on the situation and to remain calm.

Despite the Sherpas incorporating an array of psychological strategies throughout their mountaineering pursuits, for the most part, excluding routine ritual practice, it is clear that the Sherpas do not take part in any form of structured mental training. Interestingly, Durand-Bush and Salmela (2002) also found that, amongst elite level athletes, in the initial stages of an athlete's development, mental training was incorporated as an important component but "did not always involve formal and structured sessions" (p.167). They concluded by stating that usually, "the athletes refined psychological skills and strategies during daily activities and in conjunction with other training exercises" (p.167). This sheds an important light on the Sherpa culture and their daily and personal beliefs, values and rituals in relation to how they develop their psychological skills required to climb Mt. Everest, indicating that their religious and cultural beliefs and values could be the foundation of their psychological prowess.

### *6.2 Teamwork and Support in Extreme Environments*

A study conducted by Gould, Guinan, Greenleaf, Medbery, and Peterson (1999), examined the psychological, physical and social differences within teams that were successful at the Olympics and those which were not. With reference to building team rapport and group cohesion in the lead up to an expedition, Sherpas noted that it was important to initiate and develop a positive and safe environment within the group in order to facilitate a successful climb. In support of the effectiveness of this practice, in the lead up to the Olympic games, it was found that teams that spent a lot of time training and preparing together before the games were more successful than those teams that did not (Gould et al. 1999).

Wickens, Keller and Shaw (2015) presented the essentiality of common team goals and that the pursuit of individuals' and their personal goals only become clear when succumbed to difficult conditions and decisions need to be made on Everest in the interest of safety over reaching the summit. They expressed the importance of teamwork and that often conflicts arise between individuals whose aim is to reach the summit and other team members who place a greater priority on goals such as safety. This is the case for the Sherpas whose primary aim is safety and hence a very common problem on Everest today resulting in negative team rapport and both verbal and physical conflict. Furthermore, the researchers noted that the communication between team members on an expedition is crucial in determining successful decision making.



Support was mentioned consistently throughout the interviews as a vital component during a climb whether it be support within the expedition team or support from the ground control support team at base camp or in Kathmandu. Likewise, Gould et al. (1999) presented the finding that Olympic teams were more successful relative to the amount of support that they received from both family and friends. On an expedition whilst immediate family and friend support is not present due to the limitations of the environment, the Sherpas comment on how within the expedition they are a family, and the safety of each and every individual is like a family promise. Furthermore, between the Sherpas themselves, they are both friends and family. Their support for each other in every situation on Mt. Everest is incredible even in the face of life or death situations. The Sherpas comment on how their trust in each other is crucial and that doing things without support is too risky and inevitably very dangerous. Ultimately trust on Everest amongst the Sherpas and the expedition team comes down to trusting another human being with ones' life, so as Sherpa 1 declared, they help each other, trust each other and love each other very much.

### *6.3 Confidence and Belief*

Belief in high risk sports is the foundation to success. Through the results, it is clear that belief and confidence are used interchangeably between the Sherpas, with belief meaning both, the ritual and positive thinking practices which they engage in extensively and the confidence that they bear on expedition resulting from these belief practices. Sherpa 3 acknowledged that through prayer he gains more self-confidence and Sherpa 4 stated that through believing in God, it ensures his and his teams safety and success on the mountain. Sherpas also noted extensively that their confidence also stemmed from their preparation practices both mentally and physically, and their use of positive imagery in linking their previous experiences with those of positive images to overcome any negative experiences or thoughts that they may have.

Confidence in the mountains is an essential psychological skill trait that enables effective decision making, enhances stress and coping skills and dealing with pressure in the mountain environment. However, too much confidence, overconfidence, is another trait and usually detrimental to a climbing pursuit. As highlighted by Wickens et al. (2015), a climber with overconfidence may under assess or stop assessing situations after an original decision has been made due to the belief that the decision is correct and is in no further need of assessment despite ever changing conditions. As a result, they may halt all monitoring of their decision and the course

that their decision is taking them on. This act of 'extreme confidence' is characteristic of egotistic Western climbers whom base their confidence on their experience and previous successes. However, on Mt. Everest, as Sherpas 2 and 3 highlight; there is always coincidence, things happen, and if something goes wrong what can one do with their experience? Hence highlighting the insignificance of experience in the face of adversity.

The Sherpas humility on Everest despite their extensive experiences climbing throughout the Himalayas and exclusively on Mt. Everest, displays their contrasting behaviour across non-Sherpa climbers and Western climbers. It seems that the Sherpas replace their overconfidence with confidence in and respect for their God, Mt. Everest. Therefore, even though the research has supported the cause for the necessity of experience in high risk sports, whilst it is crucial in facilitating optimal safety and the best practices whilst climbing, the Sherpas believe that it can only play an effective role in decision making and dealing with stressors up until nature intervenes. Accordingly, the most emphasized skill throughout the interviews was that of belief with it playing a resounding part in the success of all operations pre-, during and -post climb. The results indicated that the Sherpas were keen practitioners of rituals and worships associated with both the Buddhist faith and superstitions that facilitated their belief and in turn, confidence. Sherpas use belief strategies pre-climb, in the form of prayers to their Gods and worship ceremonies involving their local religious figures. These practices ensure that the Sherpas can achieve optimal states of arousal prior to embarking on climbs and regulate their arousal effectively in times of difficulty on Everest. Arousal regulation has been noted as one of the key mental characteristics in the success of elite athletes, where research has shown that they are better able to cope with anxiety and control their emotions more effectively when strategies for arousal regulation are incorporated into their mental training (Weinberg & Gould, 2015).

Common to the belief strategies engrained in the Sherpa culture is the emphasis placed on superstitious beliefs. According to a study conducted on the prevalence of superstitious belief in golf, it was presented that; "when athletes are uncertain of success, a greater emphasis is placed on the importance of carrying out superstitious rituals as this reduces psychological tension" (Churchill, Taylor, & Parkes, 2015, p.336). In the case of the Sherpas, they are consistently uncertain of the conditions on Everest or what the mountain will present in retaliation of their efforts, so it can be assumed that, they to, relate to the concept iterated here that, athletes turn to superstitious acts in the face of uncertainty. We can see this through their use of prayer and rituals

which they use to gain confidence in the mountain. In light of this assumption, Churchill et al. (2015) define a superstition as; “acting as though there is, or believing there is, a connection between a cause and an effect where there is no rational direct association” (p.335). This would be preposterous to present to the Sherpas however, as their belief is adamant on the ‘fact’ that Chomolunga (Mt. Everest), their God, has the direct power to influence their journey. Sherpa 3 states that belief in the mountain and in carrying out rituals such as the ‘puja’ offers him a sense of confidence in receiving a special power through this ceremony. Sherpa 1 also passionately stated that his mind goes there and that it gives him power, which confirms the raw power and reliance that the Sherpa people place on the capacity of the ‘puja’ and their subsequent belief rituals. This further supports the idea that the Sherpas confidence stems from their belief. Additionally, both Sherpa 1 and 3 describe the importance of their tokens when they face emergency situations, they affirm that it is all down to trust and by trusting it, you will receive the power to continue.

Linked with belief is the psychological characteristic of motivation. Most research thus far in extreme sports has focused on the reasons behind why people are motivated in pursuing such high risk sports, however, little research has been conducted on how these people maintain this motivation in the face of adversity during these activities (Lloyd & Apter, 2006). One such study however, explored the characteristics of a polar explorer in the sustainment of his motivation throughout the incredible feat of skiing solo on a 64day trip from Canada to the North Pole (Lloyd & Apter, 2006). In this study, the reversal theory was employed in an effort to distinguish amongst the motives and characteristics most prevalent in the skiers’ extreme journey. The reversal theory consists of eight motivation states namely; telic, paratelic, conformity, negativistic, mastery, sympathy, autic and alloic states. Results from the study indicated that all eight states were prevalent, but the most prominent were the telic and autic motivational states. This suggests that the skier was motivated by his desire to achieve his goal, which is the telic state, but interestingly he noted that he was not continuously conscious of this desire and that it was inherent in the journey. Therefore, he used smaller more purposeful and individual goals to achieve his ultimate goal. The prominence of the autic state suggests that the skier was primarily focused on himself, but not in an egotistical manner, more so in his personal value. Other traits noted as important in the maintenance of motivation during high risk sports included; personal traits of strength, toughness and competition (mastery state), making a commitment which involved others (conformist state), breaking away from the norm (negativistic state), friend and family

relationships (sympathy state), transcending to something larger than oneself (alloic state) and seeking enjoyment (paratelic state). In relation to the Sherpas, it is clear from the results that the states which motivate them the most are centred around the sympathy state, as Sherpas climb primarily to support their loved ones, and the conformist state, as when Sherpas climb, they make the ultimate promise to keep their clients safe and help them to reach the summit. However, dependent on experience levels, as confirmed by Burke et al. (2010), one can assume these motives vary as with novice climbers one would suggest that the telic state would be present as a beginning Sherpas dream would be to reach the summit of Mt. Everest. In addition, the autic state may also be present as a Sherpa tries to define their value, worth and ability in the climbing world and build a name for themselves amongst the Sherpa climbing community. As Sherpa 3 noted in the interview, the first time they climb, they feel very happy and excited to reach the top however he concludes by stating that after the first time, it becomes normal, like their job.

#### *6.4 Distraction Control and Focus*

As perpetuated by Orlick (2008), distraction control is a key factor in facilitating constant high performance levels, whilst the consequence of poor distraction control effects ones' focus. Orlick (2016) explains that an optimistic and concentrated focus is the most important component in achieving excellence and hence why it stands alone in the centre of the wheel. Throughout the interviews, even though not directly referenced as distraction, many examples of the strategies the Sherpas use to counteract the loss of focus are prevalent. Such examples include; the importance of attaining adequate rest and maintaining composure in an emergency situation, strategies used to retain lost focus, consistent routines and procedures and the ability to lead effectively and optimally under the stresses exposed by extreme environments.

Emergency situations amongst the extremities are common occurrences and it is vital that a Sherpa doesn't lose control in these critical and possible life depending moments. Orlick (2016) highlighted that the core principle of distraction control is freeing you from distractions to facilitate enhanced focus. He continues to describe how distractions can be both internal or external, ranging from internal doubts, worries, perceptions and fears to external people and environments. Orlick (2016) emphasizes the importance of optimally handling distractions during all stages of sporting events, and that ultimately your distraction levels are influenced by what you decide to focus on or not. Furthermore, he suggests acquiring the ability to re-focus and develop strategies to facilitate

effective refocusing through positive thinking, positive imagery, reminder cues, evaluation processes and shifting focus to the present moment. In the case of the Sherpas, as indicated profoundly throughout the interviews, there are countless imminent external factors that play an inherent role in the distraction of Sherpas such as; weather conditions, natural disasters, the physical and mental health of clients etc. In these cases, Sherpas are required to maintain composure, focus and their leadership role with the upmost of professionalism. However, in emergencies, Sherpas are faced with the task of preserving their responsibilities despite excessive and extreme distraction. As Sherpa 1 comments, one shouldn't be shocked and not lose concentration. He states that concentration is very important and Sherpa 3 affirms that the main focus is on the client and the safety of all. Concurrent to the literature presented on adaption in emergency situations (Schinke, Tenenbaum, Lidor & Battochio, 2010), which focuses on the successful adaptive and conversely maladaptive techniques used in elite sport, they present that effectively managing an emergency situation whilst competing is determined by the athletes' capacity to cope, self-regulate and adapt.

### *6.5 Extreme Leadership*

Leadership was a strong recurring theme that highlighted the role of the Sherpa climbers whilst on expedition. Effective leadership within the sporting domain acts as a prominent facilitator of positive team rapport and successful team organization and performance. In Kayes' (2004) study on organization disaster on Mt. Everest, documenting the 1996 disaster, a strong link was uncovered between leadership and learning. It was found that a direct leadership approach can both inhibit a team's learning but also be the element that determines life or death on Everest. In opposition to this study however, far from the narcissist is the Sherpa, and therefore climbing for personal glory and self-indulgence is not applicable. The 1996 Mt. Everest disaster was led by non-Sherpa Western climbers and therefore cannot compare to the Sherpas, and one can establish a clear link between the overpowering narcissistic doom that was placed on the expedition teams that day when their leaders were unable to make effective and life-saving decisions fogged by the temptation to reach the summit. In this study, the Sherpas highlighted that they are constantly checking the weather conditions, reassessing their goals and ultimately determining whether or not they will proceed. They also note however, that they work together as a team and without positive group rapport and effective teamwork, failure is imminent.

Effective decision making at altitude is a difficult task which can conclusively bear the difference between life and death. The information processing model of climbing decision making, see figure 1, (Wickens et al., 2015) outlines how the decision making process occurs under the stressors of the mountain environment.

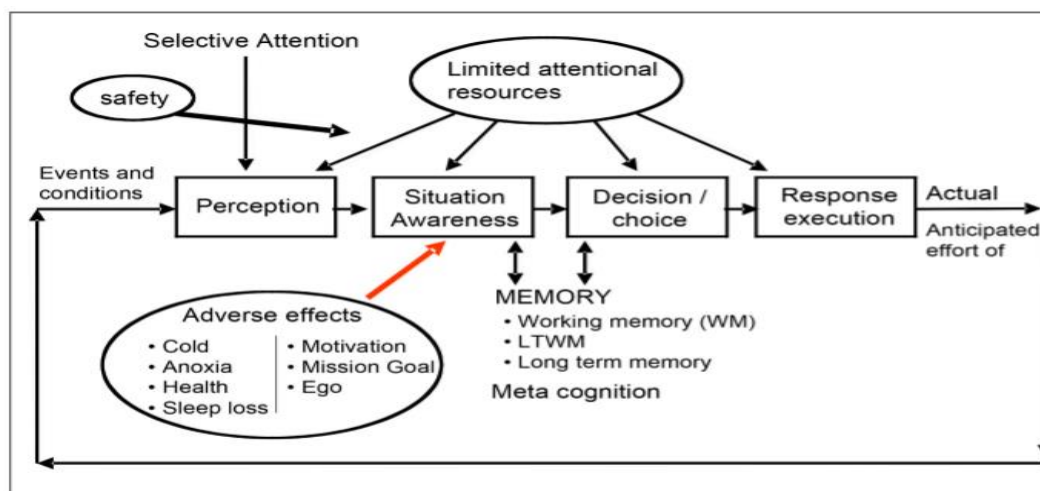


Figure 1 The decision making process of high altitude mountaineers (Wickens et al., 2015 p.7).

The model represents four stages of processing; perception, situation awareness, decision or choice and response execution. In the first stage of perception processing, athletes are taking in the cues stimulated by the environment whether it be weather or personal health. However, Wickens et al., (2015) highlights the influence of selective attention which ultimately determines the importance of these cues to the pursuit. The second stage, situation awareness, determines how the climbers regulate the overall situation, and based on the situation determines whether to continue or not. This process of decision making can prove detrimental if not adhered to correctly, as the Sherpas in this study highlight, it is very important to return if you are faced with conditions that are not favourable, a client is sick and developing hypoxia or time has deteriorated and it is too risky to continue towards the summit. The researchers note that in this stage, if the situation arises where the climbers will have limited time or are unable to make structured goals in relation to withdrawing from a goal, instant action based on previous experience and memory cues is necessary. The third stage, choice or decision, presents the importance of having a back-up plan for each decision, as a good situation on Mt. Everest doesn't result in a positive outcome due to the ever changing and instability of the Himalayan environment. The last processing stage for

decision making, the response execution, is largely determined in response to the perceived effort that the climber has to exert himself to in response to a specific decision. As the researchers state, for climbers, anticipating their effort helps in managing the effects and risks associated with exertion at high altitude. With the inevitable depletion in both mental and physical effort as altitude increases, there is never more a need for the implementation of psychological strategies which facilitate the prevention of mental deterioration. This is crucial for the Sherpas as both environmental and bodily conditions deteriorate, it is of utmost importance that the Sherpas have a strategy in place to overcome the exhaustion mentally and gain clarity in what the most beneficial decision will be for both themselves and the expedition team. It is clear from the diagram that memory plays an essential role in the process of decision making, both short-term memory and long-term memory. Both of these processes are developed extensively from previous climbing experience which, as noted by the Sherpas in this study, is paramount in being a successful expedition leader. From evaluation sessions with other Sherpas both novice and experienced, Sherpas gain vital first-hand accounts of the varying stages of the climb which ultimately makes up for a lack in personal experience and knowledge. This relates to the psychological skill of on-going learning deemed vastly important in the pursuit of excellence (Orlick, 2016). As earlier stated however, the Sherpas believe in the importance of experience, and seem critical about its importance in handling extreme incidents that may occur on Everest. This gives rise to the question of whether the Sherpas place more value on the psychological skills of focus and distraction control over experience in emergency situations?

Results from this study indicated the importance of focus with all of the Sherpas commenting on the skill as being crucial in facilitating success and safety on Mt. Everest. By being focused, it allows one to fully engage and connect with the present moment whilst hindering the onset of any distractions (Orlick, 2016). The act of focusing effects all parts of a pursuit on Everest beginning from the initial preparations and planning for the expedition all the way through to the return to Kathmandu. The Sherpas are constantly directing their attention to the safety of the entire exhibition team with this being their primary focus.

### *6.6 Commitment*

It's no secret that the Sherpas are a generous race and when it comes to giving on Mt. Everest, they come no short. Without doubt, the client is the most important person on Everest,

and keeping them safe has been determined as the Sherpas primary goal. Their commitment to the clients well-being goes beyond measure, putting their own lives on the edge can be referred to as the ultimate sacrifice.

Research on commitment with regards elite athletes can be sourced from the PEAK research referring to the ‘Project on Elite Athlete Commitment’ (Scanlan, Russell, Scanlan, Klunchoo & Chow, 2013) which aims to explore and develop commitment theory utilizing the ‘Sport Commitment Model’ (SCM) (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993). Sport commitment has been defined by Scanlan et al. (1993) as “a psychological construct representing the desire and resolve to continue sport participation” (p.6) and furthermore, in relation to psychological theory, commitment is presented as perseverance “in the face of adversity” (p.2). The SCM is a theoretical model which presents the rationale behind the psychological reasons a person commits themselves to a sport and the resulting behaviours that persist as a result from this commitment. (Scanlan et al., 2013). These sources of psychological commitment have been categorized as; sport enjoyment, valuable opportunities, other priorities, personal investments, social constraints and social support (Scanlan et al., 2013).

In relation to this model, the commitment of the Sherpas most certainly is evident, see table 2. Firstly, one of the definitions presented connects commitment with perseverance in times of hardship, and there is no place more adverse than Mt. Everest and its accompanying extremities. With reference to the six constructs of the Sports Commitment Model, the results indicate that the Sherpas associate on each one and hence can be interrelated with the skills of elite athletes.

Table 2 Sherpa commitment in response to the SCM

Sport Enjoyment:	“When we climb Mt. Everest first time, we feel very happy...because we haven’t been on the top before”, “it’s a little bit addictive you know, you are trying to do more, more, more”
Valuable Opportunities	“we are given some bonus if the clients can summit, they call it like summit bonus”
Other Priorities	Education: “Nowadays there are schools in Khumjung”



Personal Investments	Investing their lives in Everest; "...Everest is not like the other mountains...the Mt. Everest region is a killer region"  "whenever they go on a mountaineering expedition, they go in such a way like eh, they have in mind so I'm not sure if I return back or not from this expedition"
Social Constraints	Social Norm: "...part of generations to generations in our children...this is our tradition. So until now we are in this job"
Social Support	"it's your own colleagues whom you rely on, whom you depend on in every situation in every kind of different kind of need"

Overcoming adversity on Everest is no easy feat and can present itself in many forms such as; weather, ill-fated clients, natural disasters etc. and continuing in the midst of these inhibiting factors is a necessity and responsibility of the Sherpas. Hence one could argue that their commitment to a climb is infinite unless cut short by injury, sickness or death. Orlick (2016) notes commitment as the guiding factor in any pursuit and without it, goals would be impossible to achieve. He states that; "you need a good reason that is powerful enough to keep you pursuing your goals through the ups and downs of the journey" (p.15). The reasons for the Sherpas as they stated so clearly, are family related, money related and opportunity related, where most aren't necessarily doing it for enjoyment which Orlick (2016) describes as an essential ingredient for developing competency and strong commitment levels. These motivational factors are no different to some elite athletes coming from under-developed countries pursuing much needed money for themselves and their families, and opportunities for progression.

### *6.7 Evaluation and Ongoing Learning*

Sherpas place a lot of trust and reliability on their support networks such as their colleagues, friends and family and it is these people they turn to in all aspects of their climbing careers. The Sherpa race, stemming from the Buddhist religion place a strong emphasis on the core values of

love and trust. Across the interviews, it was evident that the Sherpas used time to evaluate their climbs and ensured that successes were celebrated and worshipped, whilst unsuccessful climbs were discussed and new strategies and skills determined. The Sherpas note that accidents and disasters are common occurrences on Everest, and with these experiences, comes the questionability factor on whether or not this job on Everest is worth it. However, as Sherpa 5 discussed, it is during these evaluation meetings where the sharing of experience and support from their friends facilitates getting the beat back again. Furthermore, as indicated by the results, it doesn't matter the experience or level of any Sherpa, all Sherpas evaluate and learn from everyone which ensures ongoing learning from a variety of perspectives. In the immediate aftermath of an Everest expedition, when the group have returned to base camp, Sherpas and their teams also gather and share their stories and struggles that they experienced. Furthermore, some of the hiring expedition companies provide feedback and hold evaluation meetings in which they assess the success of a climb.

In comparison, elite athletes also spend copious amounts of time effectively evaluating their performances post competition (Durand-Bush & Salmela, 2002). With these extensive evaluations, athletes and their supporting teams can learn from their mistakes and successes and in turn plan for the future (Durand-Bush & Salmela, 2002). As reported by Burke and Orlick (2003), high altitude mountain climbers place an important emphasis on the reflection of previous experiences. They were reported to benefit from this practise from drawing on their skills and abilities in overcoming adverse situations on Everest and evaluate how to effectively handle them in the future. Furthermore, it is important that high risk athletes are detailed, precise, and truthful in their accounts of their pursuits, mentally, physically and technically (Young & Knight, 2014). This is important to ensure optimal learning, safety practices and precautions are employed alongside learning psychological, physical and technical strategies in an effort to limit and prevent injuries and fatalities. Learning through evaluation will increase the knowledge of high risk sport practitioners in the unique psychological demands of their own sports and in turn increase scientific knowledge in developing effective mental strategies for high risk sports.

### *6.8 Mental Readiness*

Sherpas presented the idea of being mentally prepared as sincerely important and placed a predominant emphasis on the idea that the psychological aspect of climbing was more important

than the physical component. Through training, Sherpas gain a vast amount of essential knowledge in the technical aspects of climbing which is essential to ensure that safe and optimal strategies are undertaken during an expedition. As Sherpa 1 states, struggling with nature is not easy and you need to already know and learn about this before you embark on a climb. Sherpa 3 presented the concept of interest or motivation as a key component in developing ones' mental readiness as if you don't have the interest, you should not be climbing. Furthermore, this mental interest that the Sherpas discuss about, is vital for their perseverance as they acknowledge that when in times of challenge, where the interest may be lost, that is when they need to be already mentally prepared and aware of the inevitable struggles that they will face and how to effectively cope with them. This loss of interest could be relatable to elite athlete burnout which ultimately is described as "an enduring experience of emotional and physical exhaustion" where a "loss of engagement and diminished motivation" is present (Gustafsson, 2007). It is essential that, through these times of emotional and physical exhaustion, Sherpas are psychologically prepared to endure burnout on Mt. Everest.

Throughout the interviews stemmed the common principle of positivity. Sherpa 1 stated that in order to become mentally ready to tackle a climb, you need to be positive and never negative about what is going to happen. As Orlick (2016) presents, mental readiness is the ability to be "positive, focused, persistent, and fully committed to acting on your positive intentions" (p.16) and that "excellence requires that you choose to get yourself mentally ready for focused, decisive action" (p.16), which is exactly what the Sherpas aim to do in their mental preparation efforts. Other mental strategies that Sherpas discuss throughout the interviews that aid in mental readiness are associated with the psychological skills of mental toughness and relaxation. In research documenting the importance of preparation on high altitude mountaineering expeditions, the results indicated that just before the start of an expedition, participants displayed the greatest levels of anxiety (Stück et al., 2005). This gives support to the importance of effective organisation and psychological strategies such as relaxation techniques prior to embarking on an expedition. In light of these findings, we can already see that the Sherpas partake in calming techniques and engage in positive thinking rituals prior to climbs, and therefore already employ such strategies in relieving anxiety and negative emotive states that could lead to unwanted losses in focus, concentration and effective leadership skills.

Sherpa 4 supports the skills of mental toughness by stating that you have to be daring and brave enough to tackle what Mt. Everest presents. Research conducted on mental toughness defined it as one of the key components for athletic success in which it is referred to as “an inner focus and commitment to rise above challenges when facing adversity” (Madrigal, Hamill & Gill, 2013, p. 62) which is precisely related to the mental attributes of elite Sherpa climbers. Concerning the component of relaxation, which is another important mental strategy for elite athletes, research on Olympic athletes confirms the importance of the technique in facilitating effective stress and coping strategies which is central to gaining emotional control (Gould & Maynard, 2009). As Gould and Maynard (2009) confirm; “optimizing one’s emotions as functional and having the ability to regulate those emotions through the use of coping strategies is associated with successful performance”. (p.1041)

### *6.9 Positive Imagery*

Across the literature on Imagery, it is seen as an elicit skill that aims to facilitate athletes in “the creation or re-creation of an experience generated from memorial information” (Morris, Spittle & Watt, 2005, p.19). Imagery has been researched extensively and it has been reported that elite athletes practice and use a substantially larger amount of imagery in their mental game than non-elite athletes (Arvinen-Barrow, Weigand, Thomas, Hemmings & Walley, 2007) and therefore is an important skill in facilitating success. Positive imagery, as labelled by Orlick (2008), similarly allows an athlete to both imagine future and past experiences to increase quality performances and envisage anticipated results. Orlick (2016) elaborates on the importance of positivity in the creation of images and visions, and underlines that positively envisaging ones’ overall goal and the steps in accomplishing this goal, can lead one towards achieving excellence. In the case of the Sherpas, much was commented on the use of imagery for purposes such as; danger anticipation, route preparation, emotional recovery and motivation. Sherpa 1 outlined how he uses imagery as positive reinforcement whilst facing difficult trials by stating that when he experiences and images a beautiful panoramic view he almost forgets everything involved in the difficult moments on Everest. Furthermore, other Sherpas also indicated that through the use of imagery, they imagine the good views, which through re-living, provides senses of calmness.

Sherpas also specified the use of imagery in anticipating danger along routes. By recalling the hard and difficult moments, they are able to envisage them before they go so they can prepare

optimally in tackling them. As noted by Young and Knight (2014), incorporating psychological skills such as imagery into high risk sports training and preparation plans, athletes can greatly benefit and possibly minimize the detrimental effects that these sports can have. In comparison with traditional sports, psychological skills in high risk sports can ultimately be used for not only keeping strong mental composure in the pursuit of their goals, but also can be used for precautionary measures in light of their unstable environment. As reported by Woodman et al., (2013), there are two types of high risk athletes related to the behaviour they engage in; deliberate risk-takers or precautionary risk-takers. They postulated that the more experienced one is in their high risk sport, the less likely they would be to participate in deliberate risk-taking practices and instead employ strategies facilitating precaution. Woodman et al. (2013) put this down to being aware of the danger that exists in their environments. Their study further emphasized the importance of previous experiences in conjunction with the incorporation and effectiveness of psychological skills. We can determine from the results in this study that Sherpas employ precautionary risk taking practices in their climbing with the lives of not only themselves on the line, but also their clients.

However, despite the support of imagery in counteracting these difficulties en route, the Sherpas warned that we must remember the harsh reality of the ever-changeable weather conditions on Everest and that one can never guarantee success despite precautionary measures. Results from this study indicated that previous experiences aided in determining effective imagery and where experience was not present, imagining from the experiences of colleagues was the secondary source.

#### *6.10 The Psychological Profile of a High Altitude Climbing Sherpa*

There have been many attempts to salvage what the psychological profile of an extreme athlete is. Through examining the psychological traits that the Sherpas possess we can create their psychological profiles and in turn compare it with the psychological profile of other athletes competing in both high risk and high pressure sporting environments. An attempt was made, see figure 2, to present the psychological profile of a high altitude climbing Sherpa based on the result from this study.

In the psychological profile of a high altitude climbing Sherpa, the focus is on Mt. Everest endeavours and the psychological skills used by Sherpas in order to excel in their mountaineering

pursuits. At the core of the wheel is belief. The Sherpas place a profound emphasis on the importance of belief which transfers directly to their levels of confidence in their pursuits. Without a strong belief in their abilities, and in their God, they don't gain the necessary confidence to embark on a climb successfully. In the middle of the wheel, circulating between the core and outer circle, lies positive thinking. This skill is paramount to the successful implementation of all other psychological skills. The Sherpas emphasize that one is not mentally ready until they are thinking positively about all aspects of the climb. They strongly believe in the power of positive thinking in helping them to refocus on the present moment in times of hardship and adversity and maintain effective leadership.



Figure 2 The psychological profile of a high altitude climbing Sherpa (modified from Orlick, 2016).

In the outer wheel, radiating from a grounded positive belief, are the remaining six elements that Sherpas engage with on Everest; Ongoing Learning, Leadership, Teamwork, Commitment, Focus, and Mental Readiness. Sherpas place a strong emphasis on the power of evaluation and importance of facilitating ongoing learning post climb and continuously during climbs in the face of both positive and negative outcomes. They use this tool to learn from each other, both novice and experienced climbers, in an effort to gain the most effective and up to date information on the challenges that they may face on Mt. Everest. The evaluation process interlinks with their use of positive imagery in learning from their past experiences and preparing themselves visually through the creation of positive images prior to embarking on their climbs. This strategy for ongoing learning ensures that the Sherpas' knowledge in all areas of the mountain are up to date and facilitate optimal safety practices.

The next strategy aims at leadership, and from this study it is clear that the Sherpas possess strong leadership skills which without, organizational disaster would ensue. Included in developing effective leadership skills is the ability to cope with stress and deal with pressure in the extreme and vulnerable environment of the Himalayas. This ensures that Sherpas remain calm and stand strong in times of difficulty. Consequently, leading Sherpas must possess effective skills in arousal regulation and utilize these skills in times of hardship and whilst reassessing and evaluating present and possible situations to ultimately make the most beneficial decisions for the expedition. This requires consistent analysis and evaluation of the course of a decision and forecasting the pending outcome. Sherpas ensure arousal regulation through their belief practices which includes turning to their Gods through prayers, mantras and tokens such as the puja. This brings them a sense of calm, a return to focus and a belief in their pursuits.

The next skill of teamwork, relates to support and the ability of the expedition team to work together and achieve common goals. It is of utmost importance that individual goals do not accrue in an egotistical manner on Everest, otherwise team rapport in the face of danger may fall with conflicting ideas and decisions. Therefore, it is essential that the Sherpas facilitate positive team rapport and set clear process and outcome goals with the team prior to departure. Paramount to the success of an expedition is the ability to develop an aura of trust and respect between expedition members, when in times of hardship, support is crucial.

From the results, it is clear that the Sherpas place a large emphasis on the importance of commitment. For them, commitment can take many forms such as; commitment to their clients'

safety, termed the 'family promise', to their own families in completing expeditions and coming back alive, commitment in the face of adversity through incorporating techniques of mental toughness and resiliency, in their beliefs and positive thinking rituals despite times of hardship and difficulty, to their preparation practices and all details regarding equipment and training for an expedition, and to the support of their colleagues and others whilst climbing.

Focus is key for success on Everest and requires one to develop the ability to focus on the present moment and prevent distraction by developing strategies that facilitate the most effective return of focus. Sherpas are consistently focusing on a multitude of factors whilst leading an expedition such as; the welfare of their clients, the weather conditions, the quality and functioning of the equipment, the set-up at each camp, the present moment etc. Therefore, developing strategies that employ tactics to ensure full focus and limit distractions are crucial.

Lastly, mental readiness is related to all of the mental preparation that is required prior to embarking on an expedition. One needs to be knowledgeable in all the technical aspects of a climb including the equipment, the mental hardships in which they will face and how to deal with them, and the different stages of the climb. Alongside all of these psychological factors, the one factor that effects the successful achievement of all of these skills is safety which circulates continuously on the outside of the wheel. This signifies the ultimate goal of the Sherpas, which is not reaching the summit of Mt. Everest, but is in fact the safety of the client and oneself.

When we compare the Wheel of Excellence (Orlick, 2008) with the adapted wheel for high altitude climbing Sherpas, we can see that some of the psychological characteristics remain common across the two wheels such as; focus, mental readiness, commitment, and on-going learning. Data driven themes which differed across the two wheels were; teamwork, leadership, the core component of belief and the facilitating factors of positive thinking and safety. These skills are specific to the Sherpa climbers and may provide an insight into how they successfully climb one of the worlds' most dangerous mountains.

Considering that Sherpas are similar to elite athletes in terms of their psychological characteristics and mental capabilities we can see that indeed high altitude climbing Sherpas do possess similar characteristics for sporting success such as; belief and confidence, evaluation and ongoing learning, leadership and decision making, teamwork, commitment, focus and distraction control, mental readiness and arousal regulation. Weinberg & Gould (2015) similarly acclaim the basic psychological skills of successful elite athletes to include arousal regulation, imagery, self-



confidence, goal setting and concentration. They furthermore note the importance of group and team dynamics, group cohesion, leadership and communication as important components in achieving an effective and successful group process. The more advanced an athletes' skill levels are in these mental characteristics, the more chances they have in achieving elite levels of performance. Although the adapted Wheel of Excellence for high altitude climbing Sherpas differs from that of the original Wheel of Excellence, Sherpas still place an importance of all the skills proposed by Orlick (2008) and unknowingly practice the basic psychological skills as outlined by Weinberg and Gould (2015).

### *6.11 Limitations*

A number of limitations existed throughout the data collection and analysis process including the language barrier, translation process and the logistics of gathering the data. As the Sherpas are located in the Himalayas, in underprivileged communities with problematic communication, it was necessary to travel to Nepal and to the towns of the Sherpas in order for the interviews to take place. This meant travelling slowly, by foot, to reach the Sherpas, in a time of monsoon and when Sherpas were preparing for the next Everest season, busy with their off-duty tasks in their farming businesses or overseas. This limited the number of Sherpa participants we were able to recruit. Furthermore, as the population of the Sherpas is low in general, with the climbing population of Sherpas even lower, the ability to recruit across genders was difficult. As a result, the study consisted of all males. The language barrier was an additional limitation in the conduction of the interviews and focus group as most of the Sherpas were unaware of the psychological terms being used, with some not speaking English to a communicative standard. In this case where a Sherpa could not write, a relative was asked to sign on their behalf who explained the process in the Sherpa language. The use of the translated documents proved useful in facilitating a comfortable environment for the Sherpas in the case where they did not understand something, they had a tool to refer to. Furthermore, translator bias was a prevalent issue in the last two interviews and as a result, in an effort to ensure validity, the interviews were re-translated and in the worst case the Sherpa was re-interviewed via telephone.

### *6.12 Conclusion*

In this study, the Sherpas were classified as elite athletes whom can be compared to elite athletes across other sporting disciplines. The Sherpas presented many psychological traits

characteristic of elite athletes and high risk sporting athletes such as; belief, ongoing learning, leadership, teamwork, commitment, focus, and mental readiness, yet also were unique in their approaches and application of these skills. It is evident that the motivations for Sherpas in pursuit of Everest is money and whilst on Mt. Everest, their main motivation lies in the safety of their clients and themselves in what they term, their 'family promise'.

There has been no previous research on the psychological strategies of elite climbing Sherpas and therefore this study can only compare to those conducted on the psychological skills of other elite athletes and extreme sports athletes. Future research needs to focus on the psychological strategies of other native extreme athletes in their natural environments in an effort to determine what are the most effective psychological skills which can be incorporated into extreme high pressure environments. This research, in exploring the psychological profiles of extreme athletes, could lead to essential information in how athletes can best deal with and cope in high pressure environments. This research provides the stepping stone for further insight into the great minds of the Sherpas as it seems they have a lot more to offer than just climbing Mt. Everest.

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## APPENDICES

## 1 Nepalese Interview Questions

अन्तर्वार्ता प्रश्नहरू

## व्यक्तिगत आरोहण

यी प्रश्नहरूमा मैले तपाईंलाई एक्सपिडिसनमा नभइ आरोहणको क्रममा तपाईंको आफ्नो व्यक्तिगत विचार र रणनीतिको बारेमा सोच्ने कुराहरू सोध्छु ।

1. तपाईं कति वर्षदेखि सगरमाथा चढिरहनुभएको छ?
  - तपाईं पहिलो पल्ट कहिले चढनुभयो?
  - तपाईं अन्तिम पल्ट कहिले चढनुभयो?
2. के आरोहण तपाईंको परिवारको परम्परा नै हो?
3. तपाईं अहिलेसम्म कतिपल्ट सगरमाथा चढनुभयो?
4. तपाईं नचढेको, अफ सिजनमा के गर्नुहुन्छ?
5. हरेक पल्ट तपाईं चढ्ने प्रयास गर्दा, चुचुरोमा पुग्छु भन्ने विश्वास गर्नुहुन्छ?
  - तपाईंलाई के कुराले त्यस्तो महशुस हुन्छ?
6. चढ्ने योजना बनाउँदा, के तपाईंले व्यक्तिगत लक्ष्य कायम गर्नुहुन्छ?
  - तपाईंले कस्तो खालका लक्ष्य निर्धारण गर्नुहुन्छ?
  - जव तपाईंले तपाईंको लक्ष्य प्राप्त गर्नुहुन्छ, कस्तो महशुस गर्नुहुन्छ?
  - के यस्तो महशुसले तपाईंको आरोहणलाई असर गर्छ?
7. तपाईंसँग आरोहण गर्दा सहयोग गर्ने सञ्जाल छ?
  - तपाईं कोसँग भर पर्नुहुन्छ?
  - के तपाईंको आरोहणमा सहयोगी सञ्जालले असर गर्छ?
8. के तपाईंले आरोहण गर्दाको सबैभन्दा चुनौतीपूर्ण क्षणबारे वर्णन गर्न सक्नुहुन्छ?
  - तपाईंले त्यो चुनौतीलाई कसरी सामना गर्नुभयो?
  - के त्यो अवस्थाले तपाईंको आरोहणमा असर गर्यो?
  - तपाईंले हिमालमा भोग्नुपर्ने चुनौतीको समाधान गर्ने तपाईंको क्षमतामा तपाईं विश्वास गर्नुहुन्छ?
9. आरोहणमा केन्द्रीत भएर रहनु तपाईंका लागि कतिको महत्वपूर्ण छ?
  - तपाईं आरोहण गर्दा के कुरामा केन्द्रीत हुनुहुन्छ?
  - यदि तपाईंले लामो समयसम्म केन्द्रीत हुन सक्नुभएन भने के हुनेछ?
10. जव तपाईं सगरमाथा आरोहण गर्नुहुन्छ र जटिल मौसम अवस्थाको सामना गर्नुपर्छ, तपाईं कसरी केन्द्रीत हुनुहुन्छ?

11. आपतकालीन अवस्थामा (दुर्घटना, विरामी, हिमपहिरो, इत्यादि) तपाईं केन्द्रीत हुन के गर्नुहुन्छ? तपाईं के मा केन्द्रीत गर्नुहुन्छ?
12. तपाईं आरोहण गर्नुअघि त्यो आरोहण कसरी गर्ने भनि मस्तिष्कमा चित्र बनाउनुहुन्छ?
  - के तपाईंले रूटको चित्र बनाउनुहुन्छ?
  - के तपाईंले आपतकालीन अवस्थाको चित्र बनाउनुहुन्छ?
  - के तपाईंले चुचुरोमा पुगेको चित्र बनाउनुहुन्छ?
  - यसले तपाईंको आरोहणलाई कसरी असर गर्छ?
  - यदि तपाईंले रूटमा कठीन अवस्था भोग्नुपर्ने भए, त्यसलाई सामना गर्न के कुराले सहयोग गर्छ?
13. के तपाईंको विगतको आरोहण र अनुभवले अहिले गर्ने आरोहणलाई प्रभाव पारेको छ?
14. तपाईंले आरोहणमा आफूलाई कसरी पाउनुहुन्छ;
  - शारीरिक रूपमा?
  - मानसिक रूपमा?
15. सगरमाथा चढ्न चाहने व्यक्तिहरूका लागि, सफल हुन के कस्ता मानसिक सीपहरू आवश्यक हुन्छ जस्तो लाग्छ?
  - तपाईंले एक्सपिडिसनभन्दा दिन-साता-महिनाअघि के कस्तो तयारी गर्नुहुन्छ?
  - तपाईंले एक्सपिडिसनभन्दा दिन-साता-महिनापछि के गर्नुहुन्छ?
16. जब तपाईं आरोहणबाट फर्किनुहुन्छ, के तपाईंले आरोहणको मुल्यांकन गर्न समय लिनुहुन्छ?
  - तपाईंका लागि सफल आरोहण के हो?
17. धार्मिक आस्था र हिमाली समारोहको सम्बन्धमा, के तपाईंलाई ती पक्षहरूले तपाईंको आरोहणलाई असर गर्छ?

### एक्सपिडिसन आरोहण

*यी प्रश्नहरूमा मैले तपाईंलाई एक्सपिडिसनमा काम गर्दा हुने आरोहणका बारेमा केन्द्रीत हुन भन्नेछु ।*

1. के तपाईंले सामान्य एक्सपिडिसन आरोहणको सामान्य तालिका भन्न सक्नुहुन्छ?
  - तपाईंको जिम्मेवारीहरू के हुन्छन्?
  - तपाईंको विहानको तालिका कस्तो हुन्छ?
  - तपाईंको बेलुकीको तालिका कस्तो हुन्छ?
  - के हिमाल चढ्दै जाँदा यी तालिकाहरूमा परिवर्तन हुँदै गर्छ?
2. जब तपाईंले एक्सपिडिसनको नेतृत्व गर्नुहुन्छ, के तपाईं मानिसहरूको जीवनप्रति जिम्मेवार महशुस गर्नुहुन्छ?
  - तपाईंले यो जिम्मेवारीले कस्तो महशुस गराउनुहुन्छ?

- के तपाईंको आरोहणमा यसको कुनै असर गर्दछ?
3. आरोहणको योजना गर्दा, के तपाईंले एक्सपिडिसनका लागि लक्ष्य निर्धारण गर्नुहुन्छ?
- तपाईंले कस्तो खालका लक्ष्यहरू निर्धारण गर्नुहुन्छ
  - जव तपाईंको एक्सपिडिसन लक्ष्यमा पुग्छ, तपाईंलाई कस्तो महशुस हुन्छ?
  - के यी भावनाहरूले तपाईंको आरोहणमा असर गर्छ?

### समापन प्रश्नहरू

1. यो अध्ययनले शेर्पा आरोहीहरूले अन्य खेलकूदको अनुशासनमा अन्य खेलहरूभन्दा फरक मानसिक रणनीति अपनाउछन् की भनी अनुसन्धान गर्ने लक्ष्य राख्दछ । के तपाईंलाई तपाईंसँग फरक मानसिक रणनीति छ जस्तो लाग्छ?
  - किन?
  - के?
2. तपाईंको विचारमा, सगरमाथा चढनुमा शारिरीक वा मानसिक वा दुबै पक्षमध्ये कुन सबैभन्दा महत्वपूर्ण हुन्छ?
  - किन?
3. के तपाईं यो अध्ययनलाई थप सहयोग पुग्ने अन्य केही कुरा भन्न चाहनुहुन्छ?

## 2 Nepalese Consent Form

अगस्त 2015

स्वयंसेवक जानकारी फारम



प्रिय सहभागी,

मेरो नाम केट ओकीफ हो र म युनिभर्सिटी अफ न्याभाक्लामा खेलकूद र व्यायाम मनोविज्ञानमा स्नातकोत्तरको विद्यार्थी हुँ । मैले आरोहण गर्ने शोर्पाहरूको मानसिक रणनीतिको बारेमा अध्ययन गर्दैछु । यो फारमले यो अध्ययनमा भाग लिन चाहने स्वयंसेवीका लागि जानकारी समावेश गर्छ ।

यदि तपाईंलाई अध्ययनको बारेमा कुनै प्रश्न भएमा, तलको सम्पर्क विवरणको प्रयोग गरी मलाई सम्पर्क गर्न नहिचकिचाउनुहोला ।

### यो अध्ययन के को बारेमा छ?

- यो अध्ययनले शोर्पा आरोहीहरूले सगरमाथा आरोहण गर्दा प्रयोग गर्ने मानसिक रणनीतिको अनुसन्धान गर्ने लक्ष्य राख्छ ।

### तपाईंले के गर्नुपर्छ?

- तपाईंलाई एउटा अन्तर्वार्तामा सहभागी हुन आमन्त्रित गरिनेछ जसमा तपाईंलाई तपाईंको आरोहण अनुभवमा आधारित प्रश्नहरू सोधिनेछ । अन्तर्वार्ता 45-60 मिनेल लामो हुनेछ र अडियो रेकर्ड हुनेछ । अन्तर्वार्ता भरि नै लिखित टिपोट लिइनेछ ।

### लाभहरू के छन्?

- अध्ययनबाट संकलन भएको डाटा कठिन वातावरणमा काम गर्दा सबैभन्दा प्रभावकारी मानसिक रणनीतिहरू के हुन् भन्ने विषयमा ज्ञान बढाउन सहयोग गर्नका लागि प्रयोग गरिनेछ ।

### जोखिमहरू के हुन्?

- यदि तपाईं तपाईंको विगतको आरोहण अनुभवको बारेमा कुराकानी गर्न संवेदनशील हुनुहुन्छ भने तपाईंले कुनै निश्चित पक्षको वर्णन वा छलफल गर्न नचाहनु हुन्छ । यस्तो अवस्थामा तपाईंले जवाफ दिन नचाहेको कुनै पनि प्रश्नको जवाफ दिनुपर्दैन र तपाईंले जुनसुकै समयमा अध्ययनबाट बाहिरिन सक्नुहुन्छ ।

### जानकारीलाई के गरिन्छ?

- संकलन गरिएका जानकारीलाई विश्लेषण गरी नतीजा निकालिनेछ । सहभागीको बारेमा जानकारी सबै समयमा गोप्य राखिनेछ र जुनसुकै लिखित प्रतिवेदनमा तपाईंको बेनामीलाई सुनिश्चित गर्न बदलिएको नाम प्रयोग गरिनेछ ।

### यदि मसँग थप प्रश्न भएमा वा मैले केही बुझिन भने के गर्ने?

- यदि तपाईंसँग कुनै थप प्रश्न भएमा वा अध्ययनको बारेमा थप जानकारी चाहिएमा तलको सम्पर्क विवरण प्रयोग गरी वा अध्ययनको क्रममा व्यक्तिगत रूपमा भेटेर मलाई प्रश्न राख्न सक्नुहुन्छ । यदि तपाईंले अध्ययनको क्रममा प्रश्न बुझ्नुभएन भने, नेपाली अनुवाद तत्काल उपलब्ध हुनेछ ।



यदि मैले अध्ययनको क्रममा मेरो मनस्थिति परिवर्तन गरे भने के हुन्छ?

- यदि तपाईंले कुनै पनि समयमा तपाईंको मनस्थिति परिवर्तन गर्नुभयो भने, अनुसन्धातालाई जानकारी दिइ तपाईं तत्काल अध्ययनबाट बाहिरिन सक्नुहुन्छ ।

### प्रमुख अनुसन्धाता

केट ओकीफ

स्नातकोत्तर विद्यार्थी

खेलकूद तथा व्यायाम मनोविज्ञानमा युरोपियन स्नातकोत्तर

Kaelokee@student.jyu.fi

यो पढ्नका लागि समय दिनुभएकोमा धन्यवाद । तपाईंले यो अध्ययनमा सहभागी हुने विचार गर्नुभएमा म धन्य हुने थिएँ ।

तपाईंको भवदीय,

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केट ओकीफ

*यो अध्ययनले युनिभर्सिटी अफ न्याभाक्लाले तय गरेको नैतिक मार्गदर्शनको पालना गर्दछ । यदि तपाईंसँग यो अध्ययनको बारेमा कुनै प्रश्न भएमा वा कोही स्वतन्त्र व्यक्तिलाई सम्पर्क गर्न चाहनुहुन्छ भने, तपाईंले युनिभर्सिटी अफ न्याभाक्लाको खेलकूद तथा व्यायाम मनोविज्ञान विभागका श्रीमती तारू लिन्दुनेनलाई निम्न विवरण प्रयोग गरी सम्पर्क गर्न सक्नुहुन्छ: taru.lintunen@jyu.fi.*





**शीर्षक: आरोही शोर्पाहरूको मानसिक रणनीतिहरू**

तपाईं यो अध्ययनमा भाग लिन सहमत हुनुभएमा, कृपया तलका कथनहरू पढ्नुहोस् । र, यदि तपाईं त्यसमा सहमत हुनुहुन्छ भने, कृपया अनुमति फारममा हस्ताक्षर गर्नुहोस् ।

- मैले स्वयंसेवक जानकारी पत्र पढेको र बुझेको छु ।
- मैले यो परियोजना के हो र नतीजाहरू के का लागि प्रयोग हुन्छ भनी बुझेको छु ।
- म बुझ्छु की अनुसन्धाताहरूले यो अध्ययनमा भेटाउने कुराहरू अन्यसँग बाँड्न सक्छन् तर मेरो नाम कुनै लिखित सामग्रीमा कसैलाई पनि दिइनेछैन ।
- म आफूलाई सहभागी गराउने सबै कार्यविधी, र अध्ययनसँग सम्बन्धित कुनै जोखिम र लाभको बारेमा पूर्ण रूपमा सचेत छु ।
- मेरो सहभागिता स्वेच्छिक हो र मैले कुनै पनि कारणविना जुनसुकै समयमा परियोजनाबाट बाहिरिन सक्छु भन्ने कुरा बुझेको छु ।
- माथिका सबै कथनहरूमा सहमत भएपछि म यो अनुसन्धान परियोजनामा संलग्न हुन मन्जुर छु ।

नाम: (कृपया लेख्नुहोस्): \_\_\_\_\_

हस्ताक्षर: \_\_\_\_\_

मिति: \_\_\_\_\_

अनुसन्धाताको हस्ताक्षर: \_\_\_\_\_

मिति: \_\_\_\_\_

### 3 Volunteer Information Form



UNIVERSITY OF JYVÄSKYLÄ

Dear Participant,

My name is Kate O’Keeffe and I am a master’s student of sports and exercise psychology at the University of Jyväskylä. I am conducting a study on the mental strategies of elite climbing Sherpas. This form contains information for any volunteer who wishes to take part in the study.

If you have any concerns regarding the study, please do not hesitate to contact me using the contact details below.

#### **What is the study about?**

- The study aims to investigate what mental strategies, if any, Sherpa climbers use whilst climbing Mt. Everest.

#### **What will you have to do?**

- You will be invited to participate in an interview where you will be asked questions based on your climbing experiences. The interview will last between 45-60mins and will be audio-recorded. Written notes will also be taken throughout the interview.

#### **What are the benefits?**

- The data generated from the study will be used to aid in enhancing knowledge on what the most effective mental strategies are whilst performing in extreme environments.

#### **What are the risks?**

- If you are sensitive to talking about your past climbing experiences, then you may not wish to elaborate or discuss certain aspects. In this case, you do not have to answer any question you do not want to answer and you can pull out of the study at any time.

#### **What happens to the information?**

- The information gathered will be analysed and the results reported. Information on the participant will be kept confidential at all times and throughout any written report you will be referred to as a pseudonym to ensure anonymity.

#### **What if I have more questions or do not understand something?**

- If you have any further questions or request more information on the study do not hesitate to contact me using the contact details below or otherwise in person throughout the study. If you do not understand a question during the study, the Nepalese translation will be readily available.

#### **What happens if I change my mind during the study?**

- If you change your mind at any time, inform the investigator and you may immediately withdraw from the study.

**Principal Investigator**

Kate O'Keeffe

Masters Student

European Masters of Sport and Exercise Psychology

Kaelokee@student.jyu.fi

Thank you for taking the time to read this. I would be grateful if you would consider participating in this study.

Yours sincerely,

---

Kate O'Keeffe

*This study follows the ethical guidelines outlined by the University of Jyväskylä. If you have any concerns about this study and wish to contact someone independent, you may contact Taru Lintunen of the Department of Sport Sciences at the University of Jyväskylä using the following details; taru.lintunen@jyu.fi.*



**Title of Project:** The mental strategies of elite climbing Sherpas

**Should you agree to participate in this study please read the statements below and if you agree to them, please sign the consent form.**

- I have read and understood the volunteer information sheet.
- I understand what the project is about, and what the results will be used for.
- I understand that what the researchers find out in this study may be shared with others but that my name will not be given to anyone in any written material developed.
- I am fully aware of all of the procedures involving myself, and of any risks and benefits associated with the study.
- I know that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason.
- I consent to my involvement in this research project after agreeing to all the above statements.

**Name: (please print):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Investigator's Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

#### 4 Interview Questions

##### Personal Climbing

*In these questions I will ask you think just about your own personal thoughts and strategies whilst climbing for yourself and not on expedition.*

1. How many years have you been climbing Mt. Everest?
  - When was your first Summit?
  - When was your last Summit?
2. Would you say that climbing is a tradition in your family?
3. How many times have you summited Mt. Everest?
4. What do you do in the off-season, when you aren't climbing?
5. Each time you attempt to make the climb, do you believe that you will summit?
  - What makes you feel like this?
6. On planning for a climb, do you set personal goals?
  - What kind of goals do you set?
  - How does it make you feel when you achieve your goals?
  - Do these feelings have an impact on your climbing?
7. Do you have a support network when you climb?
  - Who do you rely on?
  - Does your support network have an impact on your climbing?
8. Can you describe the most challenging moment you have ever faced whilst climbing?
  - How did you overcome this challenge?
  - Did this situation have an effect on your climbing?
  - Do you believe in your abilities to overcome any challenges you may face on the mountain?
9. How important is it for you to stay focused on a climb?
  - What do you focus on when you climb?
  - What would happen if you were to lose focus for a long period of time?
10. When you climb Mt. Everest and encounter extreme weather conditions, how do you remain focused?
11. In the case of an emergency situation (accident, illness, avalanche etc.), what would you do to stay focused? What do you focus on?
12. Before you climb do you picture in your mind how it will go?
  - Do you picture the route?
  - Do you picture emergency situations?
  - Do you picture summiting?
  - How does this affect your climbing?
  - If you encounter tough times on route, what helps you to get through it?

13. Have past climbs and experiences influenced your climbing today?
14. How do you look after yourself on a climb;
  - Physically?
  - Mentally?
15. For people who want to climb Mt. Everest, what mental skills do you think that they need in order to be successful?
  - How do you prepare yourself days – weeks - months before an expedition?
  - What do you do days – weeks - months after an expedition?
16. When you return from a climb, do you take time to evaluate the climb?
  - What is a successful climb to you?
17. With regards your religious beliefs and mountain rituals, do you think that these aspects affect your climb?

### **Expedition Climbing**

*In these questions I will ask you to focus on climbing whilst working on expedition.*

1. Can you describe your normal routine on a typical expedition climb?
  - What are your responsibilities?
  - What is your typical morning routine?
  - What is your typical evening routine?
  - Do you find that these routines change as you progress up the mountain?
2. When you lead an expedition, do you feel responsible for people's lives?
  - How does this responsibility make you feel?
  - Does this have an effect on your climbing?
3. On planning for a climb, do you set goals for the expedition?
  - What kind of goals do you set?
  - How does it make you feel when your expedition reaches their goals?
  - Do these feelings have an impact on your climbing?

### **Closing Questions**

4. This study aims to investigate if Sherpa climbers possess different mental strategies to other athletes across other sporting disciplines. Do you think that you have different mental strategies?
  - Why?
  - What?
5. In your opinion, do you think it is more important to be physically strong or mentally strong or both in order to be successful on Everest?
  - Why?
6. Do you have anything else that you would like to share that you think would benefit the study?