



Understanding organizational resilience in elite sport: An exploration of psychosocial processes

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ABSTRACT

Objectives: Although organizational resilience research has identified the characteristics of elite sport organizations that successfully deal with significant change, further research is needed to understand how they function. The objective of this study was to explore the psychosocial processes underpinning organizational resilience in elite sport.

Design and method: Using interviews supplemented by timelines compiled from documentary analysis of public online sources, data was gathered during 43 interviews with 22 participants from 10 elite sport organizations across an 8-month period. Participant roles included chief executive officers ($n = 5$), directors ($n = 7$), board members ($n = 2$), middle managers ($n = 4$), support staff ($n = 2$), head coach ($n = 1$), and senior athlete ($n = 1$). Reflexive thematic analysis of the data was conducted from a critical realist standpoint.

Results: The data analysis yielded two core processes of sensing (internal and external mechanisms, diversity of perspectives, evaluating and monitoring) and adapting (mirroring current resource availability, open and frequent communication, acute versus chronic change), and two supporting processes of strengthening resources (quality and quantity of human and financial resources, relationships as source of additional resources) and shielding from risk (internal risk mitigation, external influencing). These data were interpreted to indicate that these processes are not sequential, or temporally distinct, but instead cumulatively contribute towards an organization's resilience capability.

Conclusions: As the first empirical investigation exploring the psychosocial processes underpinning organizational resilience in elite sport, the results provide a unique framework and practical implications to help those working in and with elite sport organizations successfully navigate uncertainty and change.

The competitiveness of elite level sport requires national and professional sport organizations to overcome and adapt to the challenges and changes associated with the elite sport landscape (Smith & Stewart, 2013). These challenges extend beyond the performance department, impacting functioning across the whole organization (Wagstaff, 2017). The field of organizational sport psychology is concerned with the ways people understand the organizations in which they work and the behavior of those they interact with (Wagstaff, 2017). The burgeoning body of literature on organizational sport psychology (Fletcher & Wagstaff, 2009; Wagstaff, 2017, 2019) has been dedicated to a range of organizational issues including, but not limited to, organizational stressors (Arnold & Fletcher, 2012; Rumbold et al., 2018), culture (Henriksen, 2015; McDougall et al., 2020; Wagstaff & Burton-Wylie, 2018), and change (Cruickshank & Collins, 2012; Wagstaff et al.,

2016). This work has been important in expanding the traditional focus of sport psychology from athlete- and team-level foci to include the role that organizations play in supporting athletes, the group and organizational level variables associated with high performance environments, and how the performance team and those within it interact with the broader organization.

In considering factors which positively influence the functioning of an organization, researchers in domains outside of sport have recently dedicated attention to the construct of organizational resilience to better understand how and why some organizations can deal with change better than others (cf. Wagstaff et al., 2020). Resilience is a term often applied where an individual, team or organization demonstrates a positive outcome following an unexpected or disruptive event (Linnenluecke, 2017). As a construct, organizational resilience differs from

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organizational change as resilience is prescriptive as to the outcome (mainly assumed to be positive, [Bonanno et al., 2015](#)). Organizational resilience encompasses both the internally instigated changes which are the focus of organizational change literature (see [Cruickshank et al., 2014; 2015](#)) and also exogenous change, such as changes in the political or financial environments which has not typically been the focus of organizational change literature. Over the last decade or so, researchers have been interested in the resilience of athletes, with notable review papers focusing on stressors and protective factors in sport performers ([Sarkar & Fletcher, 2014](#)), implications of resilience in sport for research and practice ([Galli & Gonzalez, 2015](#)), and resilience across the domains of sport and work ([Bryan et al., 2019](#)).

Further to the study of individual resilience in athletes, team resilience has been investigated in recent years. Team resilience is more than the sum of resilient individuals ([Decroos et al., 2017](#)) and is a unique construct influenced by both individual- and organizational-level phenomena and yet also distinct from both. In particular, the study of team-level resilience requires a psychosocial perspective, which includes shared experiences and the interactive resources that teams can provide ([Morgan et al., 2017](#)). Within the sport psychology literature, a program of research by [Morgan et al. \(2013, 2015, 2019\)](#) has advanced definitional and conceptual understanding of team resilience by identifying resilient characteristics, the underpinning psychosocial processes, and the psychosocial enablers and strategies that promote the development of team resilience within elite sport teams. Acknowledging that, in elite sport, many of the performance team are employees of the organization, the expansion of individual and team resilience in sport to encompass the support staff (e.g., science and medicine practitioners) and coaches (see, e.g., [Kegelaers & Wylleman, 2019; Sarkar & Hilton, 2020](#)) has already started to blur the boundaries between resilience in sport and resilience in the workplace. Given that employees and work teams are embedded in their organizational environments and are influenced by organizational practices, greater consideration and sensitivity to organizational and sociocultural influences are required to gain a more complete understanding of resilience at different levels of analysis ([Wagstaff et al., 2020](#)). Indeed, although there is a burgeoning body of evidence investigating individual resilience and team resilience in elite sport, there has been very little research examining organizational resilience.

In the first study to explore organizational resilience in elite sport, [Fasey et al. \(2021\)](#) conducted a Delphi-based study with 62 applied and academic experts to develop a definition of organizational resilience and to identify resilient characteristics of elite sport organizations. A Delphi study provides a systematic communication technique designed to transform expert opinion into group consensus through a series of survey rounds. Following the survey rounds, organizational resilience was defined as, “the dynamic capability of an organization to successfully deal with significant change. It emerges from multi-level (employee, team, and organizational) interacting characteristics and processes which enable an organization to prepare for, adapt to, and learn from significant change” ([Fasey et al., 2021](#), p. 5). Five resilient characteristics were identified by the authors: structural clarity (i.e., a clear and effective structure); flexible improvement (i.e., a culture and capability of learning, innovation and flexibility); shared understanding (i.e., shared values, collective efficacy, and group norms); reciprocal commitment (i.e., a two-way relationship between employees and employer); and operational awareness (i.e., a capability to identify and assess risks, available resources, and alternative options). In their work, [Fasey et al.](#) illustrated a complex picture of the dynamic interactions between an organization’s resilient characteristics which might be considered at individual, team, and organizational levels. For example, the authors suggested that, through scenario planning exercises, organizations could enhance operational awareness by identifying potential changes, thereby increasing shared understanding within the scenario planning team, and promoting flexible improvement through challenging employees to find solutions. [Fasey et al.](#) concluded that future

research was needed to investigate the underlying processes to understand how and when resilient characteristics interact.

Organizational resilience processes refer to the dynamic aspects of how an organization functions. Within the non-sport organizational psychology literature, early research focused on proactive organizational resilience processes which prevented failures and malfunctioning from happening (e.g., [Ismail et al., 2011; Weick et al., 1999](#)). More recently, researchers have emphasized reactive organizational processes which may underpin organizational resilience, such as adaptability ([Boin & van Eeten, 2013; McManus et al., 2008](#)) and organizational learning ([Boin & van Eeten, 2013; Ismail et al., 2011](#)). In doing so, researchers have differentiated between focusing on processes which facilitate a resilient outcome ([Meyer, 1982](#)) and those which develop a capability to display resilience in the future ([Hamel & Valikangas, 2003](#)). A better understanding of organizational resilience processes within the elite sport organizational environment that can help individuals and teams to deal with rapidly shifting environments will aid the ability of sport psychologists, senior management, and coaches to contribute towards optimal organizational functioning ([Wagstaff et al., 2012a](#)).

In line with recent calls for researchers “to examine what a resilient elite sport organization does, and to identify the underlying dynamic processes” ([Fasey et al., 2021](#), p. 10), the aim of the present research was to better understand the psychosocial processes through which organizational resilience might function in elite sport. To address this aim we interviewed employees about what organizations were doing before, during, and after significant change which they perceived to have helped or hindered the organization’s ability to deal with that change. This research is significant as it offers a first exploration of the psychosocial processes underlying organizational resilience in the elite sport context but also, by widening the lens of research into organizational psychology, we hoped to gain a dynamic, holistic perspective of optimal organizational functioning in elite sport.

1. Method

1.1. Research design and philosophical underpinnings

A qualitative research design grounded in critical realism ([Ronkainen & Wiltshire, 2019](#)) was selected to address the research question as to what elite sport organizations do before, during, and after significant change which help explain how and why they successfully deal with that change. Attempting to explain social phenomena, such as organizational resilience, by examining their causal processes is a central tenet of the critical realist approach ([Danermark et al., 2019](#)). According to [Bhaskar \(1975, 1989\)](#), the ontology of critical realism is that reality is stratified into empirical (experienced) phenomenon, actual phenomenon, and the “real” domain of phenomena which are unobservable but have the power to cause observable events. Research in this tradition is concerned with investigating relationships between what is experienced, what actually happens, and the underlying processes which produce events. From a philosophical standpoint, how to attain knowledge of those relationships is informed by the epistemological assumption of critical realism that our knowledge of social phenomena is conceptually mediated ([Ryba et al., 2020](#)). It is, therefore, necessary to interpret other people’s understandings ([Sayer, 1992](#)) as other people’s interpretations are an inseparable part of the phenomena being studied.

Multiple qualitative data collection methods were used in this study, specifically dual timepoint interviews, supplemented with researcher-prepared timelines, documentary analysis, and event-based diaries. Qualitative methods enable researchers to explore phenomena by the meanings individuals bring to them ([Smith & Sparkes, 2016](#)), rather than through direct observation. From a methodological coherence standpoint (see [Poucher et al., 2020](#)), the choice of multiple qualitative data collection methods in this study is in line with the stratified ontology of critical realism outlined by [Bhaskar \(1975, 1989\)](#), using

methods side by side to empirically elucidate - in this case, organizational resilience - in as much detail as possible. Dual timepoint interviews are used to explore participants' interpretations of organizational resilience processes, which exist in the empirical domain, from multiple perspectives and across a variety of organizations. The timelines prepared by the researchers for use in the second interviews integrate information from the first interview with information from documentary analysis taken from the "actual" domain (e.g., events such as resignations and appointments of key personnel). These timelines enable more detailed social co-construction of knowledge regarding organizational processes through communicating and discussing interpretations and experiences.

1.2. Sampling

After gaining institutional ethical approval for the study, purposeful criterion-based sampling (Patton, 2002) was used to recruit participants currently working within elite sport organizations who had knowledge of how the organization functioned. These individuals, principally at manager or director level, were presumed to have special knowledge and therefore positioned as "teachers", with the researcher as "learner", acknowledging the social interaction during the interview context to co-construct knowledge (Foley, 2012). Initial contact was by email to 20 individuals already known to the research team through participation in previous research (Fasey et al., 2021), representing a range of Olympic and Paralympic sport organizations, and professional sport organizations, covering both team and individual sports. To broaden the sample, participants were asked to recommend a colleague who could offer an alternative perspective on how their organization functions, such as a coach, administrative personnel, or a senior athlete. Accessing responses from different levels and functions within an organization is more likely to indicate what is actually happening within an organization rather than what the senior management are talking about doing, and the extent to which strategies and plans are embedded in the organization's values (Lee et al., 2013). Obtaining empirical data from a variety of perspectives is also aligned with the epistemological assumption of critical realism that knowledge is conceptually mediated (Ryba et al., 2020), requiring exploration of individual interpretations of social phenomena such as organizational resilience. A total of 22 individuals ranging in age from 32 to 70 years ($M = 49.1$, $SD = 10.5$) participated in the first interview, of whom six were female. Of these, 21 completed both interviews with one individual declining the second interview due to a change in employment. The participants were from 10 U.K. elite sport organizations - seven national sport organizations ("NSO"), one professional sport organization, and two multisport support providers. Their roles included chief executive officers ($n = 5$), directors ($n = 7$), board members ($n = 2$), middle managers ($n = 4$), support staff ($n = 2$), a head coach ($n = 1$), and a senior athlete ($n = 1$). Together they represented a range of roles across performance, operations, finance, commercial and marketing.

1.3. Data collection

Data collection spanned an eight-month period from November 2018 to June 2019, during which two semi-structured interviews were carried out with each participant, supplemented with event-based diaries, timelines, and documentary analysis.

1.3.1. Semi-structured interviews

Participants engaged in two semi-structured interviews approximately 4-6 months apart. The dual timepoint interviews had the purpose of allowing participants time to reflect and develop their own perceptions of organizational resilience and the underlying processes involved (cf. Hermanowicz, 2013). The first interviews focused on retrospective accounts of processes employed during organizational responses to self-selected significant change. The interview guide

consisted of three sections covering background information (e.g., a brief organizational history, and personal career history) to contextualize the interviews and build rapport, organizational resilience processes as the principle focus of the research, and recommendations to other organizations to improve their resilience to encourage critical reflection on the relative importance of the processes discussed. Focusing on the organizational resilience processes section, the interviewer began by providing a definition of organizational resilience as "the dynamic capability of an organization to successfully deal with significant change". Participants were asked whether they thought their current organization displays resilience, and how it compares to other similar organizations in this respect. The interviewer then asked participants to focus on an experience of significant change, and to describe what happened during (e.g., "can you describe what the organization did to successfully deal with that change?") and after (e.g., "what do you think your organization did to move on from that change?") that change. Examples of significant change chosen by participants during this part of the interview ranged from acute issues, such as serious accidents, significant operational disruption, and changes in key personnel, to chronic changes in finance, governance, and performance. Finally, in this section, participants were asked about periods prior to significant change (e.g., "thinking about periods when significant change is on the horizon, what does your organization do during these times which might contribute towards its resilience?").

In accordance with a dynamic conceptualization of resilience, the second interviews were divided into questions about current, past, and future significant change. The purpose of conducting second interviews was to investigate relationships between what participants experienced, what actually happened, and potential underlying processes through encouraging participants to critically reflect on the knowledge and understanding co-constructed during the first interviews. Specifically, the interviews began by asking about changes since the previous interview (e.g., "can you give me an overview of key events since we last spoke?"), prompted by event-based diaries where relevant as contemporaneous records of events, and any perceived increase or decrease in resilience over that period. The section about the past included a summary of topics discussed in the first interview, supplemented with a personal temporal graph or "timeline" of significant organizational changes which acted both to introduce documented events which the participant may or may not have directly experienced, and also as a tool to facilitate member reflection (Smith & McGannon, 2018). During this step, participants typically demonstrated more engagement in the process as they became conscious of the contribution and insight they were able to provide. Further, participants' increased awareness of their contribution also served to address the power asymmetry between researcher and participant (Brinkmann & Kvale, 2015), specifically the perception of organizational resilience as a primarily academic construct whose meaning is owned by the researcher. The interviewer also asked about whether the participant's views had changed or evolved since the first interview. Where appropriate, the participant was asked about initial themes developed from a preliminary analysis of first interview data from other participants, for example "how organizations learn from change". Finally, participants were asked about any future significant changes currently anticipated, and what was being done to prepare for them, as well as any actions being taken to be better prepared for unknown risks.

1.3.2. Event-based diaries

Between interviews, participants were invited to record their thoughts in an event-based diary should any significant organizational changes be experienced. The diary consisted of two parts, the first asking participants to describe the significant change, and the second asking what the organization is currently doing which may help or hinder its resilience. Event-based diaries are relevant when researchers are interested in a particular event, in this case significant organizational change, with diary entries triggered by the participant's assessment that the

predefined event has occurred (Shiffman et al., 2008). Our intention was to use diary entries as additional, contemporaneous data for analysis to supplement the retrospective interview data. In practice, the majority of participants (16) did not complete the diaries, despite email prompts between the two interviews. Conscious of the potential to jeopardize rapport by dwelling on this lack of completion, nevertheless, the first author did enquire further with one participant why the event-based diary had not been completed. The participant explained that the organizational-level changes experienced tended to be chronic rather than acute and were only regarded as significant in retrospect. As such, there was no specific event to prompt the completion of a diary entry on a particular day. For the five participants who did make diary entries, these were produced immediately prior to the second interview taking place and were used by those participants as an aide-memoire of significant events between the first and second interviews, which helped to encourage participant talk (Sparkes & Smith, 2013).

1.3.3. Timelines and documentary analysis

Timelines are a form of graphic elicitation (Sparkes & Smith, 2013) which encourage rich descriptions and space for participants to reflect by providing a visual scaffold within which to place the conversation (Phoenix & Rich, 2016). Timelines can also help to build rapport through demonstrating an understanding of the participant's organizational world (Williams, 2018). These visual representations encouraged participants to critically reflect on relationships between their experienced reality as described in the first interview, aspects of an actual reality as recorded in online documents, and potential underlying processes of organizational resilience. Specifically, individualized timelines were compiled by the lead researcher prior to each second interview to represent a temporal graph of significant organizational changes as reported by the participant during the first interview, supplemented with information from analysis of online sources such as news websites (e.g., bbc.co.uk/sport) and the organization's own website. Information obtained from such sources included details of changes in finances, performance, and key personnel. An anonymized example of a timeline is provided in the [supplementary material](#). During the second interview, the timelines prompted participants to provide richer detail on particular events, or to mention events which were not visually represented, as well as to reflect on relationships between the events depicted in the timelines and changes in the perceived resilience of their organization over time.

1.4. Data analysis and methodological rigor

In total, 43 interviews were conducted, which ranged in duration from 36 to 88 min (first interviews $M = 62.6$, $SD = 13.9$; second interviews $M = 54.9$, $SD = 10.7$). Recorded digitally and transcribed verbatim, the interviews generated 486 pages of single-spaced text. Through a process of reflexive inductive thematic analysis (Braun & Clarke, 2019), the researchers conducted a systematic examination of the similarities and differences within and across interviews to identify and develop concepts and patterns of semantic meaning relevant to organizational resilience processes. In practice, analysis occurred recursively throughout each stage of the research, from ideas generated during interviews and discussed with participants as they arose, and immersion in the first interview transcripts to generate the structure and timelines for the second interviews, to a more structured analysis following data collection.

The structured analysis was guided by the six phases of thematic analysis suggested by Braun et al. (2016). The first step involved reading and re-reading the transcripts from the first and second interviews to become familiar with the overall body of data, jotting down informal notes and observations. This process was then formalized during the second step, when the transcripts were imported into QSR International's NVivo 12 qualitative data analysis software and coded by attaching key descriptive words to text segments. The third step

involved organizing and categorizing the codes into initial higher-level themes which captured broader patterns across multiple codes. These initial themes were primarily generated by the first author, and then discussed and refined amongst the research team during the fourth step of data analysis, continuously referring back to the original interview transcripts to refine the names and specifics for each theme. In this respect the research team acted as critical friends (Smith & McGannon, 2018) by probing the sources of themes, conscious of the role of the extant knowledge of the researchers in informing the analysis and interpretation of participant accounts (Braun & Clarke, 2020). For example, an initial theme of "learning" generated from the data in conjunction with extant knowledge was subsequently incorporated within a theme of "strengthening resources" to better reflect the function and purpose of individual and team-based learning portrayed in the data. The fifth step entailed writing a rough outline of the results, including definitions for each theme and sentences which linked them together to check for overall consistency across the broader story portrayed in the results. Figure 1 was developed by the authors during the fifth step as a visual illustration of the themes and how they were related to each other. Key illustrative quotes were identified to ensure the themes were firmly grounded in the original data set. The final step of data analysis comprised writing up the results section, expanding upon the initial theme descriptions, and incorporating further data extracts to illustrate the prevalence of each theme in the data set.

The study was guided by a realist approach to judge the descriptive, interpretive, and theoretical rigor of the research in terms of how well it helps to understand the phenomena studied (Maxwell, 2017). According to Ronkainen and Wiltshire (2019), research can be assessed according to its ontological plausibility, i.e., the likelihood that the research account explains the actual state of affairs, empirical adequacy, i.e., the adequacy of the empirical data which has been collated, and practical utility, i.e., the application of the research findings to produce useful outcomes. By including a summary of what was discussed in the first interview, the second interviews acted as a form of member reflection, enhancing the ontological plausibility of the research (Ronkainen & Wiltshire, 2019; Smith & McGannon, 2018). In particular, while none of the participants felt the summary was incorrect, several of them used the member reflection to emphasize particular aspects of the discussions in the first interviews which they perceived to be important. Empirical adequacy was developed through accessing different perspectives within an organization, using multiple complementary approaches to data collection, and recording and transcribing all interview data. Practical utility was provided by taking a holistic approach to understand the processes of organizational resilience in a particular context, namely elite sport organizations, and by suggesting practical applications of the research results. Six of the participants commented specifically on the usefulness of having been involved in the research as a space to reflect on significant changes and potential underlying processes which they felt may need to be addressed in their respective organizations in future.

2. Results

The results from the analysis of the 43 interviews present the psychosocial processes underlying organizational resilience in elite sport. The data analysis yielded 11 higher order themes, with two core processes of sensing and adapting, and two supporting processes of strengthening resources and shielding from risk, as illustrated in Figure 1. Given the high-profile nature of elite sport, and to protect anonymity, the names of participants have been changed and pseudonyms have been used throughout. Quotations from the first and second interviews are denoted as T1 and T2 respectively.

2.1. Sensing

A majority (16) of participants described the need, and the

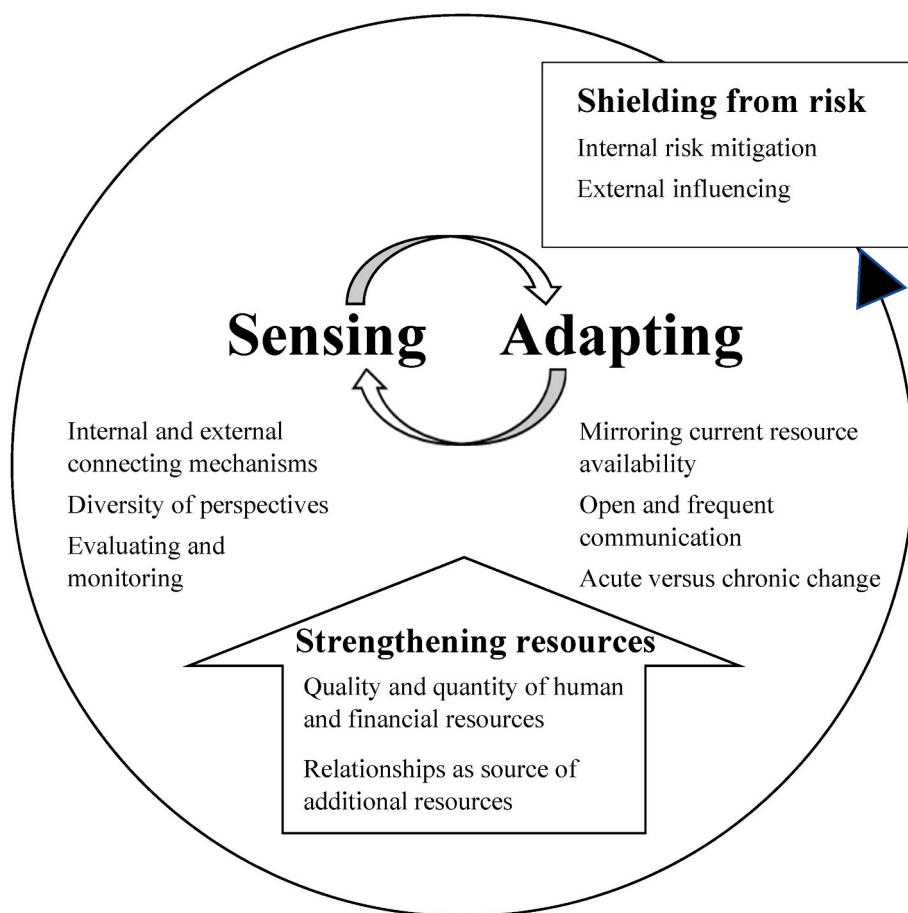


Figure 1. Two core processes and two supporting processes of organizational resilience.

mechanisms used, to gain a wider awareness of what was happening within and external to their organizations, “constantly scanning the horizon and what’s coming” (Keith, T1), and to evaluate and monitor potential significant change. For each organization, it was apparent from the visual timelines and the participant interviews across the two time points that various changes were happening at any one time with shifting salience such that changes faded in and out of significance, rather than occurring sequentially with a defined start, middle and end. A continual awareness, evaluation and monitoring of a range of concurrent changes was therefore central to the ability of an organization to successfully and sustainably deal with those changes. Sensing consisted of the three higher order themes indicated in Figure 1: internal and external connecting mechanisms; diversity of perspectives; and evaluating and monitoring.

2.1.1. Internal and external connecting mechanisms

Organizational agents (i.e., directors, and employees) used a variety of mechanisms to connect individuals and teams with information which could signal potential significant change. Internal mechanisms ranged from formal structures such as question and answer sessions, employee forums, senior player groups, and governance structures, to communication channels such as intranets and email updates, to less formalized social events. Referring to a newly established employee forum, a chief executive of a medium sized NSO explained:

They [the employee forum] help the management team and consequently they’re helping the board as well, see some of the risks at a lower level, which are often about pressure of time, pressures on people, mindset, mental state of some people that I wouldn’t normally see, get close to. (Andy, T1)

External mechanisms included networks of relationships, role-specific forums (e.g., CEO forums), and cross-sport mentoring. A performance director of a large NSO explained during the second interview, when discussing future unknown risks, the need for an awareness of the external environment, “what the general feeling is about performance sport, lottery funding, and all these other things ... If the public perception changes, politicians can change [the environment] very quickly, and then there could be massive implications” (Vince, T2).

2.1.2. Diversity of perspectives

Diversity of perspectives was regarded as particularly beneficial to the capability of an organization to sense significant change through wider awareness both of potential risks and potential solutions, especially at leadership and board level. The seven participants who mentioned diversity described it not in terms of demographics such as age, race, or gender, but in terms of the range of perspectives available prior to decisions being taken. Describing the different backgrounds and personalities of their executive team, the operations manager of a small NSO explained “that combination tends to cover the strategic issues from a few directions. There’s no one way of looking at it.” (Uri, T1). Recruiting people from outside of sport was highlighted by seven of the participants as a way to gain access to different experiences, and thus perspectives, as explained by one performance director in the context of his manager:

What he’s done in his senior leadership team, he’s got people who can look at things through very different lenses and throw in very different experiences. [Sport] was very much [sport]-only, if you weren’t involved in [sport] you’d never get into [sport] ... So, the culture of our meetings has changed massively. (Vince, T2)

2.1.3. Evaluating and monitoring

Participants noted the need to not just hear but also then evaluate and monitor information and adaptations to refine their understanding of the changes which had been sensed and evaluate whether further adaptations were required. Whilst such evaluation may ordinarily be internalized, 13 participants stressed the importance of inter-person evaluation through questioning between colleagues, board members, and external mentors, to assist in the process of refining understanding. A performance director (Owen, T1), reflecting on an issue which had recently become significant, commented “if the board had demanded of me in 2014 that [the issue], not the detail but the principles of [the issue] were run past them before decisions were made, then we would be in quite a different place now.”

Ongoing and iterative, sensing also involves monitoring for the impact of adaptations made in response to significant change. In particular, there were examples of unintended consequences of internal organizational adaptations, such as financial or human resources given to or withheld from particular work streams, or leadership narrative focusing on particular departments, which had been interpreted as indicating their relative importance to the organization. Exogenous change also resulted in unintended consequences, with notable examples stemming from external funding, both governmental and commercial, being linked to “on field” performance, or political values, in contrast to organizational performance metrics. Specifically, substantial changes in funding strategy, such as TV rights, government grants, and commercial partnership deals were linked to the performance of a team or individual athletes, or to wider political values such as diversity in sport participation. Potential impacts noted by three participants included discouraging planning, hiding inefficiencies, and increased focus on one team at the expense of another. Debbie, a board member of a mid-sized NSO, described at T1 how partnership funding allocated to a particular discipline within her sport “did have an impact on the rest of the organization, on the rest of the [disciplines]. Because all the other [disciplines] were then basically left to feel, ‘Well, we’re not as important, we’re not as special’.” In such instances, what were perceived as positive adaptations, or strengthened resources, had unforeseen negative consequences which required ongoing sensing for potential risks.

2.2. Adapting

Adapting is part of the ongoing iterative resilience processes in which changes are continuously sensed and reactively adapted to. It encompasses both the immediate solutions put in place to balance organizational activities against current resource availability, and the longer-term adjustments to sustainably embed those short-term adaptations through continual communication. In particular, the process of adapting is relevant to both the noticeable and immediate responses to acute change, as well as the less visible process of successfully dealing with chronic change through constant flexing and adjusting. Adapting consists of three higher order themes indicated in [Figure 1](#): mirroring current resource availability; open and frequent communication; and acute versus chronic change.

2.2.1. Mirroring current resource availability

Adapting involves continuously and sustainably adjusting the activities of the organization in response to current resource availability (particularly financial and human resources), described at T1 by Tina, a performance coordinator, as “trying to work out how to do things differently and more effectively when you’ve not got the same resources”, and by Debbie, a board director, at T1: “there is a shock on the system of having an increase of funds just as there is of a removal of funds”. This adaptive process may involve retrenching through cancelling or postponing programs and focusing on smaller projects to allow future adaptive survival and growth. It may also (sometimes simultaneously) reveal opportunities such as strengthening key relationships, allowing physical resources to be upgraded, creating new bargaining

positions with external stakeholders, or driving difficult but necessary staffing decisions. In all cases, adapting should be sustainable and not solely reactive. Simply spending more as resources increase is not sufficient: “If you budget to spend X and you’re suddenly one third of the way through the year, given 7%, 8% more, what are we spending it on? Now don’t worry, I can always find something, but it doesn’t mean it’s well thought through.” (Ed, T1).

The appropriate timing of adjustments to mirror resource availability following an increase or decrease in resources was discussed. Eight participants spoke negatively about experiences of leadership artificially altering the pace of adapting within an organization, either by imposing unnecessary changes or, more frequently, of adjustments being delayed by leadership. The head coach of a national team, Mark, described his frustration (T1): “[The board] were just looking at us to produce some world-class players, rather than looking at the system. The culture’s changed, and the way people go about their life has changed, we need to address that.” Nevertheless, there was a recognition from nine participants of a temporary need for stability to purposefully slow the pace of change during periods of higher disruption, such as retaining employees during periods of high turnover. The purpose of such temporary stability was described at T1 by Vince, a performance director: “we’ve got to decide within this journey, who are those key people to keep the stability, consistency, make sure the risk management, the systems, the processes are adhered to while we get fresh blood in.” Another participant spoke of stability in operational processes to allow the building of informational resources, and for organizational learning to become embedded. It seems from these participants comments that the role of leadership is to sense and facilitate adapting at a pace that allows resources to be built rather than depleted. For example, three participants from one multisport support provider spoke of the difficulties in the timing of adjustments across T1 and T2 between mirroring current resource availability through changing strategy (cutting expenditure) in response to external change (delayed income generation) versus mirroring anticipated resource availability by sticking with a pre-determined strategy. This slowing of the pace of adapting to allow anticipated resources to materialize and sustain current organizational projects was described as “holding our nerve” (Ben, chief executive). The interviews with participants from a variety of roles within the same organization across two time points facilitated a nuanced understanding of the ongoing evaluations of current versus anticipated resource availability to determine how and when to adapt in a sustainable manner. Rather than focusing on pre-empting future change, or protecting the organization from change, decision making involved constant iterative sensing and adapting as information and available resources changed.

2.2.2. Open and frequent communication

A majority of participants (14) identified open and transparent communication between individuals and teams within an organization as necessary to understanding which changes in resources needed to be adapted to, and to embed those adaptations effectively. This echoes the need for free-flowing information which underpins the sensing process to identify, evaluate and monitor risk. During the adapting process, communication was thought to facilitate trust amongst key stakeholders, guard against siloed working, ensure relevant information was available in a timely manner, and bring people along with the change:

If you all come to a decision together, it’s much easier for an organization to effect change, to be resilient for that change, because everybody’s had a say in the decision, everybody knows the parameters that are involved in making that decision, and therefore there’s much more of a buy-in (a) to make it work but (b) to understand it’s a better option than the other options. And when it’s not quite going right people understand what the end game is. So, I think that transparency of communication is really important for effecting change. (Chris, CEO, T1)

Adapting here is seen as necessarily engaging all employees, rather than a strategic process solely engaging the board and the executive team, to ensure that the need to adapt as well as the direction of adaptation permeates throughout the organization. Some participants in leadership roles, concerned about the potential for misinterpretation of information and negative consequences, felt it may be desirable to control communication during acute change rather than facilitating free flowing information. This point was highlighted by Vince at T2, following a summary of the discussions from T1. On being asked whether his thoughts had changed, or anything was missing, Vince wanted to emphasize the need to think ahead to the next Olympic cycle while trying to maintain focus on the current cycle: “if we want to restructure some department or operations in a different way ... that needs to be kept very tight, whilst also making sure we’ve properly consulted and discussed and listened to people. And that is a real difficult balance. I’m only getting my head around that now.” Conducting interviews at two timepoints within the Olympic cycle helped to capture some of the more subtle shifts in emphasis between controlling and enhancing the flow of information.

In contrast, participants outside of senior leadership roles felt they were aware of the existence of major changes, even though those in leadership may have been attempting to limit the flow of information, but without a concurrent understanding of *why* those changes were taking place. This resulted in concern, anxiety, and mistrust, with participants formulating their own explanations, as described at T1 by Tina, a performance coordinator: “There was a lot of hearsay going round ... and it got to a point of we just felt like we weren’t either being trusted, or we weren’t included.” This quote can be interpreted to indicate great care needs to be taken when balancing the desire to minimize negative consequences of adapting against the potential for damaging trust through restricting organizational communication.

2.2.3. Acute versus chronic change

During the interviews participants described quite different adjustments depending on whether they had experienced acute significant change, such as a serious accident, operational disruption, or changes in key personnel, compared to chronic changes in finance, governance, and performance. When dealing with acute change, the focus for participants was on mobilizing accumulated resources, specifically having the right people working in collaborative relationships communicating effectively to deal quickly and effectively with the event: “You have the right trained people, you have the right connections, people available, good quality people in the system you can solve most relatively large problems there and then” (Vince, T1). The impact was often dealt with in relatively discrete teams, either pre-existing or purposefully co-opted. Investing authority in a small group to facilitate rapid decision making, and increasing clarity over communication channels, such teams were charged with a clear task goal and empowered to find solutions to deal with the short-term organizational response. Although there were examples of implementing pre-formulated crisis plans, particularly concerning the cascade of communications, far more frequently the emphasis was on the capabilities of individuals and their relationships with others, suggesting that organizational resilience in relation to acute change relies on organization-level processes to rapidly divest responsibility with structural clarity, and on high quality human resources and relationships at the individual and team levels. In contrast, successfully dealing with both chronic change and gradual adaptation following acute change, participants focused on organization-level communication as the impact spread to wider parts of the organization. In particular, conscious effort was required to communicate the ‘why’ behind decisions rather than simply the ‘what’ to allow the organization to adapt because, as described at T1 by Chris, “if you do things people don’t understand and you don’t explain it, that makes it very difficult for them to buy into what’s coming.”

2.3. Strengthening resources

Supporting the central resilience processes of sensing and reactively adapting, 16 participants spoke of proactively strengthening the quality and quantity of human and financial resources as important for supporting an organization’s future resilience capability (see Figure 1). The head of performance sport at a large NSO explained how adapting to change, without building future resilience capability, is not enough:

Athletes keep winning medals, we deal with change, but each time we’re starting again ... I have not seen evidence of sport being very good at that continuous development of capability. We just get capability back to the same point. (Sean, T1).

Relationships were an important source of additional organizational resource which could be called upon to deal with significant change: “If we’ve got a commercial partner, it might not just be financially what you can take but it could be intellectual property, or people development, can you create resilience by what others can bring in?” (Paula, T1)

2.3.1. Quality of human and financial resources

Strengthening the quality of human resources through proactively recruiting the ‘right people’ and then developing their skills and experience was referred to by nine participants as an essential component to cumulatively developing the future resilience capability of the organization. Exposure was regarded as particularly important to developing experience, whether vicariously through learning about experiences of third parties, and debriefings following significant events, or directly through secondment, exposure to increasingly demanding competitive events, or delegating challenging decisions. This last point was summarized by the CEO of a large professional sport organization when asked at T2 about how to capture organizational knowledge, a point which had been raised by other participants at T1: “So much of people’s good decision making is down to their personal experiences ... delegating to the point of being uncomfortable, because people have to learn by making decisions that sometimes go wrong” (Chris, T2). Other participants shared concerns over the difficulty of translating individual experiences to an organizational level, noting how ‘hard’ information can be captured and disseminated, but it is the ‘soft’ information, understanding the how and the why, which is harder to share. Probing further on this topic at T2, much of the application of individual know-how was felt to require judgement and expertise, such as an understanding of individual athletes’ preferences, or wider contextualized understanding, for example of current and historic relationships. Through being able to explore themes at T2 which had been extracted from an initial analysis of interview data at T1, a more nuanced perspective on the relationship between learning in elite sport organizations and resilience was developed. Specifically, individual learning through exposure was perceived to contribute towards organizational resilience through strengthening the quality of human resources available to deal with future significant change, rather than directly increasing organizational learning.

Strengthening the quality of financial resources took place by purposively increasing the control over income streams. Specifically, developing collaborative funding partnerships was regarded as more sustainable than reliance on government grants or traditional sponsorship models, as such relationships tend to be established over the longer term, based on mutual value, and allow greater autonomy. In contrast, participants from three organizations spoke of the negative consequences which can arise from grants or sponsorship funding. Examples included the development of unsustainable resource-heavy programs and concentrating resources in a discrete area with unintended impacts on other teams, inhibiting organizational adaptability and flexibility, captured in the comment by a board director: “When the funding was withdrawn ... there was a palpable sense around the table of, ‘Okay, we can call the shots now’” (Debbie, T1).

2.3.2. Quantity of human and financial resources

Turning to consider issues of resource quantity, eleven participants highlighted the need for spare human resource capacity to allow individuals to sense changes and learn from their experiences. Where there is little spare human resource capacity, this can lead to a reduction in available resource through employees engaging in extensive monitoring processes, illustrated in frequent budget meetings and closely monitoring workloads. Four participants developed this theme further at T2 noting that lack of capacity can also result in failure to exploit opportunities to strengthen resources, with examples provided by participants including developing club and competition structures, monetizing assets, or changing to a more efficient governance structure.

Whilst spare human capacity was regarded as universally positive, participants were divided as to the benefits of higher quantities of financial resource in terms of its impact on organizational resilience. Two participants directly linked a greater quantity of financial resources with increased resilience, for example by enabling investment in processes and technology, and the employment of additional staff, as well as building financial reserves. In contrast, six participants highlighted that greater overall resources could hinder resilience by shielding the leadership from having to make tough decisions or disguising underlying dysfunctional processes. The authors interpreted that it was the buffering effect of spare financial resources, rather than the absolute amount, which allowed an organization time to sense whether current changes in resource availability were temporary or sustained, and therefore whether adapting was necessary. Further, spare resources enabled investment in other types of resource, such as technology, to shield against anticipated future risks.

2.3.3. Relationships as source of additional resources

High quality relationships were one potential source of additional capacity during times of significant change, providing access to tangible organizational resources such as finance, recruitment, training partners, and facilities, as well as intangible resources such as informational and social support. Inter-organizational relationships between, for example, an elite sport organization and their funding partners, academic institutions, or other elite sport organizations, proactively built on interpersonal relationships between individual employees in each organization, were described as “leveraging the network to support you becoming stronger” (Paula, T1). The importance of these external relationships was highlighted by a CEO of a national team: “Partnerships are the main things that can work to improve an organization’s ability to handle challenging situations ... if you have partners, and they needn’t be in the same sports sphere, they can sometimes take some of that load off” (Ed, T1).

2.4. Shielding from risk

Shielding from risk in the form of internal risk mitigation processes and influencing potential sources of external risk is the second of the two supporting processes for organizational resilience, alongside strengthening resources. Seven participants described how relentless change in the absence of shielding from risk can lead to overwhelming of the system, with no spare capacity to sense other potential risks, make timely adaptations, and ultimately leading to a depletion rather than strengthening of any spare human and financial resources to deal with future change. A performance director of a mid-sized NSO highlighted the impact of significant change between T1 and T2:

We spent a massive amount of time on finances to try and basically keep the organization going, let alone being able to do the things we want to do. And that has undoubtedly been the biggest challenge, because it has meant that we have had to stop doing things that we wanted to do, and not start things we wanted to do. (Quentin, T2)

Shielding from risk appears to have a protective function as illustrated in [Figure 1](#), allowing an organization to strengthen resources and

build its future resilience capability, as well as space to maintain and develop current resilience capabilities of sensing and adapting. Participants discussed two main forms of shielding from risk, internal and external.

2.4.1. Internal risk mitigation

Internal risk mitigation involved good governance processes, such as risk registers, financial budgeting, and decision-making structures, as active management tools to both reduce the likelihood of significant change, and to be able to deal with it should it occur. Scenario planning was a tool used by five of the participants to work through specific risks collectively, although participants were divided as to whether it was the output, or the process, of scenario planning which helped deal with acute change. Outputs mentioned by participants included crisis communication plans and delegation of authority policies, which provided structural clarity to aid rapid decision making under pressure: “we probably didn’t have anything that was identical to our scenario planning, but we had plenty of scenarios to react to, and we had some structures in place to enable us to do that” (Fiona, director of communications, T1). In contrast, within the team tasked specifically to deal with the acute change, formal policies were rarely adhered to, either due to their inapplicability to the context, or not having time to refer back to the detail of such policies: “it definitely wasn’t as a result of well-practiced plans, this was the first time that something this major had happened to us, and this serious” (Quentin, performance director, T1). Instead, the benefits of scenario planning were in the process itself, strengthening the quality of the human resources available to deal with future significant change through developing individual and team-based efficacy and coping skills and improving relationships amongst team members to work through problems collectively. This was particularly important to Uri, an operations manager, when sending coaches and athletes to competitions abroad: “we send a team, not a group of individuals that can’t work through a problem.” (T1)

2.4.2. External influencing

External risk mitigation processes focused on proactively influencing the potential for future risk through relationships with third parties. Examples of such relationships given by four participants arose from the influential additional roles held by board directors in national and international sporting bodies, stakeholder organizations, and in club and volunteer bodies. A striking illustration came from a significant dispute between an NSO and its membership base, with Nancy, the CEO, describing at T1 the role of one of their board members:

He came into his own in this process because he’s well regarded within the sport, and he sat on the phone and he rang people and he used his network ... [A club member] isn’t going to listen to an Independent Director who he sees just from the corporate world, ‘What are you doing meddling in my sport anyway?’”

These individuals were able to advocate, influence, and lobby from within those bodies, influencing for example how rules and regulations were developed, how governance structures were changed, and how policies were developed and implemented, to the advantage of the organization in question.

3. Discussion

Drawing on qualitative data gathered from multiple stakeholders from elite sport, the aim of this research was to better understand the psychosocial processes of organizational resilience in elite sport organizations. The study illustrates how organizations engage in concurrent and iterative processes of sensing and adapting in relation to a range of ongoing significant changes, as shown in [Figure 1](#). Sensing describes the internal and external mechanisms used to gain an awareness of what is happening, the importance of diversity of perspectives to achieving that awareness, and the need for ongoing evaluation and monitoring of

potential significant change. Adapting requires balancing organizational activities against current resource availability, and sustainably embedding those adaptations through open and frequent communication. It is likely adaptation processes differ in emphasis depending on whether the significant change is sudden or manifests itself over a longer period of time. Alongside these core processes, organizations simultaneously engage in strengthening and shielding processes of building the quantity and quality of human, financial, and relational resources, and internal and external risk mitigation, to help develop future resilience capabilities. We have therefore structured the discussion around these core and supporting resilience processes.

3.1. Core resilience processes – sensing and adapting

The results of this study revealed that ongoing change required continual adapting to ensure current organizational priorities and workstreams were aligned with current and anticipated resource availability. Our results support the acceptance of uncertainty and change by employees within elite sport, suggesting that resisting the urge to fall back on previously successful solutions, which [Uhl-Bien and Arena \(2017\)](#) noted in their decade-long research as the natural proclivity of people and organizations, may be more readily achieved within the elite sport domain. [Wagstaff et al. \(2016\)](#) noted repeated organizational change was accepted by their participants in elite sport as an “inherent characteristic of working in high-performance domains” (p. 43). Although there were found to be both negative and positive responses to repeated change, employees in [Wagstaff et al.’s](#) study typically reported learning from successive change events. The results of our study extend this work by highlighting the value of temporary stability during periods of acute change to allow resources, particularly informational resources in the form of expertise, to be strengthened rather than depleted.

The results highlighted a tension among participants when leadership attempted to control or restrict the content, timing, and tone of communication during periods of significant change. According to [Weick \(1995\)](#), individuals continually engage in sensemaking activities, through which they collaboratively interpret and frame organizational events to understand them, extracting cues from the context, and preferring plausibility over accuracy. The term “sensegiving” has been coined to describe attempts by leaders to influence these sensemaking activities towards a preferred outcome ([Gioia & Chittipeddi, 1991](#)). Our results indicate that employees may experience anxiety, or mistrust in leadership, if they detect inconsistencies in what they are sensing, and the information flowing from leadership. Nevertheless, [Maitlis and Christianson \(2014\)](#) noted that in a crisis, where actions become more public and irrevocable, committing to a particular explanation may be counterproductive at a time when flexibility is required. Our participants noted that during acute change, communication channels were temporarily restricted and hierarchical. The relationship between communication, trust, and flexibility in times of acute versus chronic change merits further investigation, as do the wider processes characterizing sensemaking in sport contexts ([Wagstaff, 2020](#)).

Interpretation and evaluation of information is not a linear, temporal response to significant change, but instead is continuous and iterative, also acting as a form of feedback to evaluate and monitor the outcomes of actions taken in anticipation of or in response to significant change. Of particular importance is the detection of unintended consequences arising from such actions. Counterintuitively, participants in the current study spoke of high levels of financial resource as potentially impeding organizational resilience, avoiding the need to adapt by making tough decisions. External funding, while increasing the overall quantity of financial resources, may disrupt the balance within the organization by introducing requirements or constraints on how the funding is used (decreasing adaptability), requiring particular goals to be fulfilled (altering system purpose and workload), or encouraging reliance on a limited source of funding (decreasing sustainability of resources). Described as “rigidity traps” ([Walker & Cooper, 2011](#), p. 156), such

financial gains may make an organization less able to change and adapt by inhibiting the flexibility needed for adapting. Such unintended consequences are a feature of emergence in complex systems ([Cilliers, 2001](#); [Walker & Cooper, 2011](#)), where agents both internal and external to the organization interact in a non-linear manner and produce unpredictable outcomes ([de Coning, 2016](#)). We interpret our results as an indication that rather than attempting to foresee and control outcomes with leadership focused on a “command and control” top-down hierarchy, attention should be shifted to evaluating and monitoring feedback and emerging outcomes, with an acknowledgement that teams within an organization are likely to experience and respond to change differentially ([Kahn et al., 2018](#)).

3.2. Supporting resilience processes - strengthening resources and shielding from risk

Our participants spoke about the importance of strengthening the quality of human resources by exposure to a variety of situations to develop experience. There was skepticism however among participants of the potential for organization-wide learnings because of this individual-level experience. The integration and application of these types of individual knowledge for the collective (organizational level) benefit is at the heart of knowledge management ([McIver et al., 2016](#)), which is concerned with how best to leverage individual experience, know-how and judgment either through composition or compilation. Composition creates value through fostering replication and repetition by integrating similar activities in a linear fashion, such as rowers in a boat’s crew, whereas compilation creates value through combination and augmentation, integrating dissimilar activities in a non-linear pattern, such as musicians in an orchestra ([McIver et al., 2016](#)). When describing how elite sport organizations successfully deal with acute change, participants spoke of small teams of people with specialized, relevant, and complementary knowledge collaboratively integrating their individualized know-how to create original solutions to the unique circumstances. [Carlson \(2018\)](#) referred to this as “preparedness” in which a resilient response to acute change requires an ad hoc “network of responders” with the specific knowledge for that crisis to emerge. In these circumstances, the benefit of strengthening the quality of human resources through experiential learning as advocated by our participants may be leveraged to the organizational level through combining and augmenting the specialized individual knowledge variation resulting from such experiential learning, rather than seeking to reduce such individualized knowledge to documented, replicable processes ([McIver et al., 2016](#)).

As well as strengthening the quality of human resources, and based on our results, strengthening relationships should also benefit the resilience of an organization by providing access to additional resources. In other organizational domains, networks of relationships provide a vital source of support (e.g., [Kimberlin et al., 2011](#)) and access to shared resources (e.g., [Dalgaard-Nielsen, 2017](#); [Wicker et al., 2013](#)). The centrality of communication to the process of building relationships was noted by [Buzzanell \(2018\)](#), commenting that resilience is cultivated in human communication and network structures, and therefore consciously building “deep and multiplex bonds, and alliances through, for example, board membership and interorganizational networks, increases the opportunities to rebuild” (p. 16). Our results extend this body of research by indicating that relationships can also have an important protective role in shielding the organization from risk where they enable organizational agents to influence external stakeholders.

3.3. Strengths and limitations

Integrating a variety of qualitative methods during data collection, in combination with the breadth of participants’ experience, revealed a comprehensive understanding of organizational resilience for those working in elite sport organizations. In particular, analysis of documents

and transcriptions prior to and between interviews is likely to have enhanced the quality of data collected through demonstrating to participants familiarity with their organization and their personal background. This in turn facilitated trust and rapport, increased participants confidence in the worth of the perspectives provided, and legitimized the time spent by participants on the interviews (Brinkmann & Kvale, 2015). A limitation of the study may lie in the initial sampling method, through contacting individuals already known to the research team through having participated in at least one round of a previous online study into organizational resilience in elite sport (Fasey et al., 2021). As a result, the interpretations of the relevant participants (who formed 33% of the final sample) may have been influenced by the content of that study. In terms of study design, given that resilience necessarily involves a better-than-expected outcome (Bonanno et al., 2015; Fletcher & Sarkar, 2013), to properly ascertain whether an outcome is better than expected requires a comparison or some form of benchmarking against which to assess this. In this study, whether an organization had displayed resilience was at the judgment of individual participants.

3.4. Future research directions and practical implications

A framework which holds promise for enhancing the understanding of dynamic constructs such as organizational resilience is complex systems theory (Cilliers, 2001; Walker & Cooper, 2011). From this perspective, organizations are seen as systems having the ability to adapt to multiple changes at any given time in a sustainable manner, demonstrating emergent properties including self-organization. This self-organization is a result of dynamic and non-linear interactions of its constituent parts, based on local information, interactions with their environment, and feedback (Chandler, 2014; de Coning, 2016). With this lens, the focus is on patterns of interactions, the processes through which resilience emerges, rather than the constituent components. Already commonly used by organizational resilience researchers in other domains such as healthcare (Barasa et al., 2018), within sport organization research systems theory has been used to explore contextual intelligence (Brown et al., 2005) and change management (Cruickshank & Collins, 2012). Given that sport organizations are open systems with relationships at every level with external agents and their environment, the application of complex systems theory to guide the development of organizational resilience thinking within the elite sport context appears an “intuitive ideological fit” (Walker & Cooper, 2011, p. 144).

The emergent, unpredictable outcomes of non-linear complex adaptive systems (Cilliers, 2001; Walker & Cooper, 2011) underlines the importance of exploring the interactions between resilient characteristics and resilient processes, situated in their sociocultural context. Morgan et al. (2019) used an ethnographic approach to explore the enablers and strategies that promote the development of team resilience within a high-level sports team. Ethnography has also been used to explore organizational cultures in sport (e.g., Feddersen et al., 2020). By offering an opportunity to study specific cultures and their social interactions and behaviors in-depth through prolonged immersion, ethnographic practices could also provide an evaluation of organizational resilience as a precursor for future intervention work. Intervention research helps understanding of how strategies designed to purposively develop organizational resilience may be implemented, yet such research remains scarce within organizational sport psychology (Wagstaff, 2019).

To address a limitation of this study regarding benchmarking successful outcomes across a range of elite sport organizations, future research could directly compare responses to a similar significant change across organizations to explore differences in outcomes and potential psychosocial processes which may have underpinned those outcomes. The funding system of U.K. national sport organizations provides a valuable opportunity to conduct such research, given that, at the start of every four yearly Olympic cycle, funding decisions are

announced which frequently involve a sudden decrease or cessation of funding for a small number of sports. As well as assessing and comparing outcomes, event system theory (Morgeson et al., 2015) may help illuminate where and how within an organization such change has an impact. Event system theory provides a framework for researchers to explore the interplay between the strength of a change (how novel, disruptive, and critical it is), how it spreads throughout an organization (see also Kahn et al., 2018), and how long it remains impactful.

In terms of practical implications, practitioners may be daunted by the prospect of developing and delivering organization-wide intervention programmes to develop organizational resilience, rather than working solely within the performance department. Organizational interventions are essentially a form of internally instigated organizational change, and as such, the literature on organizational change in sport is instructive here, particularly the work of Cruickshank et al. (2014, 2015). Cruickshank et al. proposed a set of guiding principles addressing the initial evaluation, planning, and impact phases of instigating change, alongside managing stakeholder perceptions and expectations. Applying this framework to the results of the current study, practitioners could conduct an initial evaluation of the current capability of an organization to sense and adapt to change through examining the internal and external connecting mechanisms, and diversity of perspectives available, together with an informal communications audit to understand how communication flows through the organization. Planning interventions to develop the capability to sense and adapt to future change, and strengthening the quality of human resources, can be instigated at both the individual and team levels. At the individual level, strengthening relational resources internally and externally with key stakeholders may provide access to resources during times of significant change. Stakeholder analysis could be used to identify key internal and external stakeholders and rate their power and influence in relation to an individual's role, or a team's project to determine which relationships to focus on (Walters et al., 2010). Relationship networks developed in this way can help organizations to sense potential significant changes, as well as being a source of additional organizational resources in times of adversity. At the team level, scenario planning with a diverse group of employees provides an opportunity to sense a wide range of potential risks and the resources available to deal with them (McManus et al., 2008) from a variety of perspectives. Through encouraging innovative and collaborative solutions, these tasks can also support key organizational resilience characteristics of flexible improvement and shared understanding (Crichton et al., 2009; Fasey et al., 2021). Outcomes of scenario planning include risk shielding strategies whilst simultaneously developing the team-based efficacy and coping skills which are particularly valuable for adaptation processes during periods of acute change. Finally, an impact assessment should be conducted, focusing on potential interactions between organizational resilience processes in different settings and how these may have impacted actual and perceived outcomes. In sum, we encourage practitioners to not be disheartened by the scale of the task when implementing organizational-level interventions, as working alongside key stakeholders and decision-makers can result in a greater visibility and understanding of the benefits of the applied work even without empirical measures (Fayard & Van Maanen, 2015).

4. Conclusion

The results presented here showcase two core and two supporting organizational resilience processes, namely sensing and adapting, and strengthening and shielding (see Figure 1). These results were based on qualitative data gathered from 22 individuals operating in ten elite sport organizations. Given the ongoing and iterative nature of significant organizational changes, these processes are not sequential or temporally distinct, but instead cumulatively contribute towards the capability of an organization to deal successfully with the multiplicity of changes faced at any one time. Through a perspective of complex adaptive systems (Cilliers, 2001; Walker & Cooper, 2011), change is seen as normal,

and indeed necessary, such that resilience is not concerned with control or stability but rather stimulating and facilitating the processes necessary for successful adaptation. As the first empirical investigation exploring the psychosocial processes underpinning organizational resilience in elite sport, these data provide an important and unique framework and practical implications to help those working in and with elite sport organizations navigate uncertainty and change.

CRedit author statement

Kirsten Fasey: Conceptualization; Data curation; Formal analysis; Methodology; Investigation; Writing - Original Draft; Project administration. **Mustafa Sarkar:** Conceptualization; Formal analysis; Methodology; Writing - review & editing; Supervision. **Chris Wagstaff:** Methodology; Writing - review & editing; Supervision. **Julie Johnston:** Writing - review & editing; Supervision.

Declaration of competing interest

None.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.psychsport.2022.102236>.

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