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Title: Experiences of Athletic Trainers in Tactical Athlete Settings When Managing Mental Health Conditions

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Title: Experiences of Athletic Trainers in Tactical Athlete Settings When Managing Mental Health Conditions

Context: Research demonstrates that job demands impair tactical athletes' mental health. Mental health stigma in this population and limited resources prevent individuals from receiving care. Athletic trainers (ATs) are often the first, and sometimes only, contact for mental health concerns. Previous literature indicates that ATs desire more psychosocial training and experience.

Objective: To investigate ATs' preparedness and experiences managing patients with mental health conditions in the tactical athlete setting.

Design: Consensual qualitative research.

Setting: One-on-one, semistructured interview.

Patient or Other Participants: 15 athletic trainers [males=7, females=8; age=36±10 years; experience in tactical athlete setting=4 years (range = 6 months-20 years); military=12, law enforcement=2; fire service=1].

Main Outcome Measures: Interviews followed a 9-question protocol focused on job setting preparation, mental health training, and perceived role managing mental health concerns. Interviews were audio recorded and transcribed verbatim. A 3-person coding team convened for data analysis using the consensual qualitative research tradition. Credibility and trustworthiness were established using a stability check, member checking, and multi-analyst triangulation.

Results: Four domains emerged surrounding ATs mental health management experiences in tactical athletes: 1) population norms, 2) provider preparation, 3) provider context, and 4) structure of job responsibilities. Most ATs felt their educational experiences lacked comprehensive mental health training. Some participants described formal employer resources

that were optional or mandatory for their job, while others engaged in self-education to feel prepared for this setting. Participants shared that unfamiliar experiences, such as divorce and deployment, influenced their context as providers. Most ATs had no policy related to mental healthcare and referral, indicating it was outside their responsibilities or were unsure of role delineation.

Conclusion: ATs working with tactical athletes suggested additional mental health education and training are necessary. The ATs also indicated improvement is needed in job structure regarding role delineation and establishment of policies regarding behavioral health.

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Key Points:

1. Athletic trainers lack the educational background to evaluate, manage, and refer patients for mental health concerns in the tactical athlete setting.
2. Athletic trainers working in tactical athlete settings do not have policies to help manage patients with mental health conditions.
3. Athletic trainers are unsure of their role related to mental health management and the resources available to assist patients with these concerns.

INTRODUCTION

Mental wellbeing is a multifaceted state with many definitions depending on the point of reference. The American Psychological Association defines mental health as "*a state of mind characterized by emotional well-being, good behavioral adjustment, relative freedom from anxiety and disabling symptoms, and a capacity to establish constructive relationships and cope with the ordinary demands and stresses of life*."[1] However, many organizations are rethinking the definition including the European Psychiatric Association which in 2015 proposed a new definition for mental health as "*a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express and modulate one's own emotions, as well as empathize with others; flexibility and ability to cope with adverse life events and function in social roles; and harmonious relationship between body and mind represent important components of mental health which contribute, to varying degrees, to the state of internal equilibrium*."[2] As mentioned in the two provided definitions, mental health can be viewed positively and/or negatively and is influenced by social, environmental, and personal factors. Since these factors effect individuals differently, it is critical to evaluate mental health effects amongst various populations.

Previous research has identified that shift work (e.g. bartending, chauffeuring, construction, tactical positions) with hours outside the typical 7am-6pm period drastically increases rates of poor mental health and mental health disorders (70.6% increase) compared to non-shift workers.[3] A tactical athlete (TA) is an individual employed in military, law enforcement, firefighting, and rescue occupation necessitating physical preparedness for high occupational demands as well as tactical and technical abilities in order to face both

environmental and human risks.[4] These individuals participate in rigorous physical training and extreme occupational demands, (e.g. two-mile run tests, standing power throws, sprint-drag-carry, aerobic interval tests, and stair climbs) utilizing equipment that is often heavy, with ladders weighing 55-130 pounds, hoses creating forces ranging 80-110 pounds, and load carriages (e.g. ruck sacks) carrying up to 100 pounds of supplies.[5-7] These physical demands place great stress on the body which may result in prolific injury rates and can impact the individual's mental health.[8] According to a study examining recovery in rescuers after a twenty-four hour work shift, significant measures of recovery were recorded after forty-eight to seventy-two hours of rest.[9] However, long working hours and abnormal shifts may impact the ability of the individual to get adequate rest from the physical and psychological stresses of work.[3,9]

Previous research indicates that 70% of military members develop a mental health disorder (e.g. depression, anxiety, post-traumatic stress disorder [PTSD]) following injury.[10] Apart from physical demands, TAs also experience tragic events throughout their careers that can further affect their psychological wellbeing. In a study investigating prevalence of traumatic occurrences in volunteer and career firefighters, 96% of participants had experienced a traumatic or critical event on the job, of which the most commonly reported were scenes with: multiple critical injuries (81%), direct exposure to blood and/or body fluids (80%), corpse removals (77%), protection by police required (67%), a seriously injured victim trapped for long durations (64%).[8] Furthermore, 34% of career firefighters reported experiencing a co-worker's death on the job,[8] and firefighters reported that continual traumatic exposures took a psychological toll that impacted their mental health, personal wellbeing, job operation, and family life.[11] Additional literature has demonstrated that ambulance services tend to be more mentally demanding than firefighting services, and that the density of incidents to which the firefighters responds can

influence the psychological cost it takes on individuals.[9,12] Moreover, in 2019, mental health conditions (MHCs), regardless of specific diagnoses, was named the second leading diagnoses among military training instructors (10.4%).[13] However, mental health and associated healthcare is continually stigmatized in TA settings therefore numerous barriers to receiving care have been reported: stereotypes, non-supportive leadership, judgement from peers, disclosures not remaining confidentiality, and adverse career impacts.[14-16] While the military has implemented intentional efforts to investigate and mitigate mental health stigma, obstacles still exist that need to be overcome relative to resources and experience with providers.[17] In a study examining mental healthcare barriers in firefighters and paramedics, all participants reported a need for improved mental health literacy.[14] This indicates that healthcare providers must be able to recognize, refer, and educate individuals regarding MHCs within TA settings.

Research examining facilitators and barriers to collegiate athletes' access to and interaction with mental health services identified that ATs did not have structured protocols for referring athletes to these services.[18] Moreover, some athletic departments did not have resources necessary to provide mental healthcare and some individuals providing these services may be inadequately educated to do so.[18] Additionally, newly certified ATs reported being inadequately prepared for psychosocial job aspects.[19] A recent study of ATs with current or previous experience in military settings identified that most were skeptical if their athletic training programs (ATP) prepared them to work in this setting.[20] Research has demonstrated that TAs are at risk of developing MHCs from occupational stresses, but has not investigated training, education, and comprehension of psychological interventions by ATs to effectively manage MHCs in TA settings. Therefore, the purpose of this study was to investigate ATs' preparedness and experiences managing patients with MHCs in the TA setting.

METHODS

Study Design

A phenomenological approach was used to perform this qualitative research study. The study investigated perceptions, beliefs, and experiences of ATs working in the TA setting regarding their abilities to identify, refer, and/or help patients with MHCs to assess AT preparedness to manage such conditions. This research study was approved by the XXX Institutional Review Board.

Participants

Participants for this study were individuals who were currently working as an AT in a TA job setting.[20] In total, 25 ATs expressed interest in the study. Data saturation was achieved after interviews were completed with 15 participants. Demographic data including participant pseudonyms are provided in Table 1.

Interview Protocol

As there are no existing protocols addressing the objectives of this study, a custom semi-structured interview protocol comprised of closed- and open-ended questions was created.[20] The protocol was initially developed by two of the researchers and sent to three authors for revision and external review. The semi-structured interview approach permitted data to be flexible and allow for follow-up questions to be presented to better capture the experiences and beliefs of the participants.[21] The participants were asked five demographic questions to collect background information followed by nine interview questions regarding their experiences and perceptions pertaining to management of MHCs in the TA setting. Table 2 demonstrates the complete interview protocol used for this research study.[21]

Procedures

Participants were recruited via e-mail. The e-mails of ATs actively working in the TA setting were obtained through the National Athletic Trainers' Association (NATA) research database. An initial e-mail was sent to all potential candidates (n = 274) with a description of the purpose of the research study and a link to an online survey where they could provide their contact information if interested. The primary investigator (PI) sent a follow-up e-mail to all who provided contact information to schedule their one-on-one interview via teleconferencing (Zoom Video Communications, San Jose, CA).

Data for the study was collected through semi-structured online interviews with the PI and participants following the custom interview protocol. Participants provided consent prior to beginning the interview.[21] Interviews were conducted at the participants' convenience and lasted 20-30 minutes.[22] Each interview was audio-only recorded, transcribed verbatim using artificial intelligence transcription (Otter.ai, Los Altos, CA), and verified by the PI.[22] Each interview transcript was sent to the corresponding participant to review and confirm accuracy through a process called member checking.[22]

Data Analysis

The research study utilized the consensual qualitative research (CQR) tradition, a practical and established process for analyzing participant responses in qualitative research.[23] As part of the CQR construct, three researchers (AAA, BBB, EEE) comprised the coding team to minimize biases.[23] Data analysis underwent four phases illustrated in Figure 1.[23] To identify initial domains, the coding team initiated the phase 1 process by individually reviewing 4 participant interview transcripts to select key core ideas and then group like ideas together into domains to establish the preliminary codebook.[23] Next, the coding team read 2 previous transcripts from phase 1 and 2 new transcripts to confirm the consensus codebook during phase

2. In phase 3 of the process, the coding team then applied the codebook (domains and categories) to all transcripts using multi-analyst triangulation by which each person coded 5 transcripts individually and then swapped with the other members for an internal review process. After independent reviews were conducted of each other's coding, the research team met to discuss disagreements to reach consensus on these discrepancies. An AT on the research team (CCC), but not on the coding team, acted at the external auditor to confirm the work of the coding team by reviewing 3 transcripts. Finally, cross-analysis occurred to group like quotes from the categories together followed by calculating a frequency count for each category. For frequency counts, a category was considered general if it was reported in all or all but one (n=14) transcripts, typical when reported in 8-13 transcripts, variant when coded in 4-7 transcripts, or rare when reported in 3 or fewer transcripts.[23] Trustworthiness of the data collected was assured through verbatim transcription of interviews, transcript confirmation by participants, and multiple-researcher triangulation.

RESULTS

Four domains emerged through data analysis regarding ATs' perceptions, experiences, and preparedness related to MHCs among patients after the interviews: 1) population norms, 2) provider preparation, 3) provide context, and 4) structure of job. Categories emerged to support the domains in illustrating the participants' thoughts and feelings more clearly from their interview responses. Table 3 presents the frequency counts of each category which identified we had a homogenous sample of participants with generally or typically similar experiences. Table 4 provides supplemental quotes for each category that emerged from each domain.

Population Norms

Participants described cultural and organizational aspects of TA settings related to mental health. Two categories emerged in support of the domain: (1) stigma, and (2) mental health concerns.

Stigma

Twelve ATs reported stigma within the TA setting that affects mental health and mental healthcare among patients. Participants explained that TAs tend to be less open to discussing and seeking care for MHCs due to perceptions of weakness and judgement. Additionally, participants described concerns patients have regarding how disclosure of psychological struggles may affect their careers. Elizabeth illustrated stigma within this setting explaining, "[TAs] also seem less likely to seek care and associate it with weakness." Fang shared their feelings surrounding societal views on mental health, "It is just a societal dogma. …I think there is still a dark, condescending view if you need mental health assistance. …That is on society as a whole." Pat addressed mental health within TAs:

> *I think that overall, at least in the Marine Corps, it used to be seen and is still seen as a weakness. For example, we are moving our resource team to a place where the command deck does not see them so Marines who think there is a stigma do not miss their appointments because they think they are going to be judged.*

Mental Health Concerns

Participants expressed that cultural factors, including work hours and job demands, impact patients' mental health. Additionally, ATs described outdated concepts of handling MHCs within the population, expressing that TAs try to be mentally tough and hide psychological concerns. Participants felt mental health and associated care should be brought into a more common and positive light within TA settings. Bobby mentioned:

> *As much as the Armed Forces has put resources towards dealing with [mental health], it honestly has not been enough, because these are systemic cultural problems that require more than just a class or a certification or a behavioral health referral.*

Mikey expressed career-related fears within the setting stating:

> *[TAs] have a paranoia about their careers – it is very competitive, and they can very easily lose their spot on the squadron. When I first started, I had a few people say I could ruin their lives with anything that I do or say or write down.*

Brooke depicted pandemic effects on mental health in TAs noting:

> *The thing with TAs and mental health is that you are always going to face it in some way. COVID-19 was a huge struggle for TAs. The stresses… of not knowing - are they deploying? If not, when are they coming home? Are they not going home? When are they going to get to see their families again because they have to quarantine? So, mental health was a very big issue this last year within our population. It is something that needs to be brought to more normalcy. I think ATs are going to be great assets in the coming years for helping with mental health because…we are the melting pot [in healthcare].*

Provider Preparation

Participants explained their educational experiences including optional sessions and elective courses. Participants described resources available at their current TA job site and proposed ideas for future professional development. Four categories emerged to support the domain: (1) educational experiences, (2) formal employer resources, (3) self-education, and (4) suggested professional development.

Educational Experiences

Three participants felt they had in-depth education related to mental health from their educational programs, which was mostly obtained in post-professional programs. The other twelve ATs felt their mental health education was minimal to none, being overall brief and general in nature. Drew added to this by stating, “we did not have mental health training back then [20 years ago].” Pat illustrated their mental health education: “I got a little bit with my master’s, but I would not say that it was extensive. I do not have a ton of mental health training.” Bambi described the mental health training throughout their ATPs:

> *In my professional education there was not much. And I would say the same about my master's program. My doctorate program is what provided me the most educational experience with mental health. We had coursework, clinical experiences, and simulations where mental health was involved. So, I think that is where I really got my feet wet in dealing with mental health and being educated on how to even go about asking those questions to a patient or how to incorporate holistic healthcare into my evaluative process – it definitely came from my Doctor of Athletic Training program.*

Formal Employer Resources

Participants reported varying levels of psychological resources available at their clinical sites which ranged from no knowledge of available resources to few accessible as the AT. Additionally, 66% of participants did not have any formal on-the-job education or training relative to MHCs, resources accessible for patients and staff, or referral for such conditions.

Lily outlined their mental health resources accessible stating, "We have a clinical psychologist working within our program, which I do a lot of referrals to, even if there are no red flags per se." Carrie depicts their lack of resources regarding a patient case explaining:

> *I realized that I did not have a whole lot of resources listed or have a good understanding of what those referral points looked like. I did not feel like I knew the resources that were available, who to send them to, and did not have really any preparation to have a good idea of how to help.*

Grace described different trainings at various job sites:

> *In the Army, we were given quarterly training in mental health and factors to recognize. Working for the Air Force, it was a lot heavier - we had to do 2-3 classes every quarter in recognition of [mental health]. And in the Navy, they brought in a mental health professional who sat down twice a year so you could understand why certain individuals would not be allowed into Special Warfare based on their mentality issue that may have popped up.*

Self-Education

Most participants expressed they had invested in self-education prior to or during their employment in the TA setting. Several opted to make connections with providers at their clinical site independently, while others invested in additional trainings, conferences, and literature

regarding MHCs. Brooke reflected: "Everything that I chose to do is optional." Mateo described their self-education to prepare for transitioning into this setting acknowledging:

> *There is no specific preparation and there is going to be a variety… depending on what assets are available locally - whether it is embedded assets or relying on base or medical group assets. So, learning what is available. A lot of that was self-directed and just working through situations as they present.*

Bambi depicted their experiences with self-education:

> *Once I got here, I went to the wellness unit. I did that on my own - it was not a required element. I also have taken the Behavioral Health First Aid course for young adults. I did that before I was in the TA setting. So, I did get some information there that was outside of school and work. But it was not specific to TAs.*

Suggested Professional Development

Fourteen participants felt additional psychological training should be integrated into ATPs to better prepare future ATs, specifically to reduce stigma and how to approach patients with MHCs. Theod construed the importance of additional training expressing, "I think any type of training geared towards helping clinicians understand mental health would be good to just feel comfortable having open conversations with your patient." Grace further described the need for additional training and education:

> *No matter what setting you are in, [it is important] being able to recognize when someone needs help or when someone is in trouble and how to approach that person as a medical provider. I have been out of school for 15 years, but the training that I received did not prepare me for people that were uncomfortable being touched because of traumatic experiences or mental disorders and it certainly did not prepare me for the types of experiences among the patients that I work with [in the TA setting].*

Danni discussed suggestions for future professional development within ATPs:

> *We are usually the first people that have a trusting relationship with [the TA] so they do come to us. I think that [mental health education] should be a core piece of the curriculum because we need to be able to recognize it. But we should also have a basic*

understanding for encompassing all the different settings and how it can affect individuals and what we should be looking for.

Provider Context

Participants noted differences between traditional and TA settings, and how unique features of the TA setting impacted them as clinicians. Two categories developed in support of this domain: 1) unfamiliar experiences, and 2) comparative competency.

Unfamiliar Experiences

Thirteen participants (86%) described unfamiliar experiences that impact their clinical context in the TA setting, many (n = 9) reporting those experiences related to the population's culture, job demands, and deployments. Drew detailed the uniqueness of the TA setting recognizing they may find themselves, "dealing with a person who is trained and has access to a firearm." Theod spoke about TAs' career and family aspects mentioning, "The biggest part is understanding their work stresses, a lot of that being their schedule, as well as understanding their family dynamic." Elizabeth described the load of psychological concerns they see in TAs:

Since I see a much higher number of soldiers compared to collegiate athletes, the volume I have seen with mental health in the setting took some getting used to. I was not prepared to have as many soldiers as I did have suicidal thoughts or anxiety issues.

Comparative Competency

Participants had varying responses when comparing their experiences in the TA setting to the traditional setting. Bobby recognized that TA settings contrast the traditional settings in schedule acknowledging:

It is like being on a sports team that they do not have an offseason - there is always the chance that they [will] need to go. So, there is this attitude of 'yes, we will get you…help. However, the mission comes first. So, if you [TA] get pulled on mission, then put those

issues in your back pocket and we will come around to those when there is time.' And sometimes that can result in their care being delayed for years.

Grace voiced distinctions between traditional athletes and TAs:

There is a very big difference in… active duty versus the students coming straight from Basic Military Training (BMT). Active duty has seen combat, have seen team members die or been on missions with the utmost of secrecy. I honestly think the biggest difference is recognizing that a TA is always putting their life on the line, every time they deploy. In athletics, it is the mentality of focus and drive and doing the best that you can and being the best that you can and winning.

Lily spoke to differing demographics stating, "I do not think there is a huge difference with athletes versus TAs per se, but definitely within age groups."

Structure of Job

Participants shared experiences working with other healthcare providers, job duties related to MHCs, and policies associated with mental health referral and care. Three categories emerged in support of this domain: 1) lack of policy, 2) role delineation, and 3) collaboration.

Lack of Policy

One participant reported having established policies regarding recognition, management, and referral for MHCs. It appears there was overall uncertainty or conflict surrounding the AT's role in mental healthcare management within TA settings. When asked their role in managing a patient with psychological concerns, Mikey responded, "I have to be honest, I do not really know." Many ATs, when asked about policies in place, responded similarly to Andrew who stated, "I do not have a written policy." Carrie shared their thoughts on barriers related to policies:

As far as it being an actual policy, the likelihood of that is low because of the contract standpoint. So, a lot of the processes that I create are not reviewed through the Air Force. It is more of a personal policy as a contractor.

Role Delineation

Fourteen participants discussed role delineation within the TA setting. Several specified that mental health management is not within the AT scope of practice, clearly identifying the need for mental health resources to utilize. Bobby spoke to role delineation regarding mental health stating, "As an AT, it is not within my scope to make that diagnosis or to be the primary caretaker for that." Fang mentioned difficulty caring for patients with MHCs explaining, "[It] just depends on if the patient got orders to see the person. I do not have the ability to set up orders to see a mental health provider." Andrew discussed practicing within AT training voicing:

> *I think the biggest thing is we are not mental health specialists. My [spouse] is a mental health clinician that works with kids suffering from anxiety disorders. I do not think we should do that. We find them the appropriate means to help themselves, which I think would be to refer to a mental health clinician that has been trained years to be qualified and help that person through that situation.*

Collaboration

Eleven participants (73%) discussed collaboration within the tactical setting, in which three subcategories developed: 1) formal, 2) informal, and 3) limited. Elizabeth voiced thoughts regarding collaboration within the TA setting:

> *I think that if procedures were put in place so communication is improved between the provider and AT, we can help the TAs succeed a little bit more quickly than they are with the current practices in place. Because when there is not communication between the healthcare providers, within reason to the rehabilitation process, I think it makes it hard to manage certain cases.*

Bambi added:

> *We have the wellness unit, so I have utilized that resource numerous times. I have handled numerous patients at different phases of their mental health. Sometimes I am the first person having that conversation that they are showing signs and symptoms of potential mental health impairments or struggles that they need to maybe have addressed if they would like to. Having that initial conversation and being the first person in their life who has told them that is extremely challenging, and so we are networking and using collaboration with the wellness unit.*

Overall, the participants had varied experiences when collaborating with others. Danni described the minimal and unclear resources at their clinical site by stating, "If I did not seek it out as a medical provider, I do not know that I would have known what resources are available to the athletes." The lack of formal job structure for interprofessional collaboration was a concern for participants.

DISCUSSION

By occupational nature, ATs' frequent interactions with patients facilitate strong relationships, placing them in an optimal position to recognize signs and symptoms of MHCs and expedite referrals and/or psychosocial interventions for desirable patient outcomes.[24-29] However, our findings indicate that many ATs employed in the TA setting do not feel confident in their ability to recognize, refer, and manage patients with MHCs. This is similar to other research which indicated that, while over 90% of ATs believe facilitating referral for mental healthcare and recognizing signs and symptoms of MHCs is part of their occupational duties, they struggled to select proper care strategies for patients experiencing psychological distress.[30] Participants demonstrated several concerns specific to TA settings that influence the mental healthcare patients receive. Specifically, four domains were identified related to mental healthcare within the TA setting: 1) population norms, 2) provider preparation, 3) provider context, and 4) structure of job.

Population Norms

Mental health is a popular topic globally.[31] The abnormal work hours, career requirements, and occupational experiences put TAs at increased risk of developing MHCs.[3,8,10,11,13] Our research found that cultural stigma surrounding mental health impacted patients' willingness to acknowledge and discuss psychological concerns. Previous research

exhibited similar results and barriers to receiving mental healthcare among TAs: perceived ridicule from peers, lack of appropriate resources, associations with weakness, and concerns of negative career impacts.[14-16,32] Stigma among TAs may relate to limited mental health literacy within the population, which research has indicated plays an important role in patients pursuing mental healthcare.[33] The United States military has taken initiative through research and interventions to reduce mental health stigma and improve access to and use of mental health resources. Their research demonstrated that a reduction in mental health stigma occurred when individuals believed that the organization supported and cared for their wellbeing.[17] Additionally, increased perceptions of organizational support were associated with a forecast of lessened PTSD at all phases of deployment (prior to, during, and after). Mental health self-stigmatization was significantly minimized when individuals participated in an intervention program, which typically targeted cognitive methods to educate individuals how to gain increased control of their emotions.[17] While these efforts and interventions have shown promise for lessening mental health stigma within the military, further research is necessary to identify beneficial program structures and policies that ATs can implement.

Our participants expressed unique aspects of TA populations that influence behavioral health, including elevated stress levels, low quality sleep, and lack of mental health resources, which coincides with previous literature.[14,16] Furthermore, preceding literature has indicated collegiate athletics demands impacted athletes' mental health as compared to nonathletes.[18] Additionally, one participant mentioned the COVID-19 pandemic further impacted their patients' mental health. It is important to note that most of our participants had been employed in the TA setting for less than five years, many for only 1-2 years. Therefore, these ATs' experiences managing MHCs may have been influenced by COVID-19 and may not reflect

typical experiences within the population. However, the pandemic may have shed additional light in healthcare gaps and cultural issues within the TA setting, as it has increased the prevalence of MHCs among adults revealing where issues in pursuing and receiving care lie.[34]

Preparation and Context of the Provider

While the Commission on Accreditation of Athletic Training Education (CAATE) dictates that psychology is required in ATPs, it does not define the amount or detail this education must reach resulting in disparities among AT preparedness to address psychological concerns.[30] Although most participants had completed a Master's degree, they indicated varying levels of training related to mental health recognition, care, and referral. As was true in a previous studies, our participants overall noted they had vague or little psychological education in their ATP and therefore, felt inadequately prepared to manage MHCs.[19,20,28-30] This suggests education specific to identification of concerning behavior, referral processes, and incorporating psychosocial strategies into clinical practice is critical to implement into ATPs to facilitate holistic and exemplary care for patients struggling with MHCs.

As previously mentioned, the CAATE standards do not clearly define psychological education within ATPs which leaves individual programs to dictate the extent of education students receive.[30] Our participants noted completing non-mandated training to improve their competency and confidence managing patients with MHCs, comparable to prior literature that suggests ATs may not obtain proficiency in psychological recognition, psychosocial interventions, and appropriate referral in their ATPs.[18-20,28,29] Yet, research has demonstrated that ATs express desire to gain thorough education pertaining to MHCs and management, many of whom elect self-education to do so.[29]

Psychological conditions are widely prevalent in various populations which indicates the need for healthcare providers to understand signs, management, and referral processes for patients with such conditions.[3,10,11,13,18] The educational outcomes received from a single psychology course and occasional continuing education programs within athletic training are not sufficient for clinicians to be adequately disciplined to implement psychosocial interventions into patient care.[29] Our participants reinforced this mentioning a need for additional mental health training, provided formally in ATPs and pursued individually, to effectively integrate psychosocial interventions into clinical practice. A potential solution to improving psychosocial education within ATPs is to facilitate collaboration between the primary organizational systems of athletic training and psychology. We recommend that the CAATE and the American Psychological Association Commission on Accreditation partner to allow ATs to become proficient and confident in psychosocial strategies during either their professional or residency program. This will in return allow for networking with psychology students who can become multi-disciplinary assets in future patient care for TAs.[29]

Structure of Job Responsibilities

Literature has demonstrated that education, early detection, and appropriate referral are critical in caring for patients exhibiting psychological concerns.[35] It is further noted that structured protocols regarding the management of MHCs is necessary to not only improve recognition and referral of such concerns, but also improve overall patient care.[35] As was true in a preceding study, our results demonstrated that very few ATs employed in TA settings have these structured policies in place to assist in orchestrating appropriate and successful care for patients with MHCs.[18] This may be in part due to many athletic training jobs in tactical athlete settings, specifically within the military, being offered through contracts with independent

companies instead of directly from the site of employment, which may limit the athletic trainer's scope of practice and responsibilities.[20] Traditional settings, like colleges/universities, typically report having a written mental health policy in place.[28] Though college athletics deems updating policies regularly as best practice, many institutions do not consistently review these documents, implying that athletic training overall needs organizational improvement for mental health management.[28] This implies the lack of policies or outdated policies can inhibit effective patient care. System-based factors also complicate collaboration between mental health providers and ATs, as providers tend to use different documentation programs to record care provided to the same patients.[27] This suggests that interprofessional collaboration may be limited in this setting and advancements should be made.

Various methods exist, including electronical, and can be used as resources for MHCs allowing access at work, school, or home, which could be particularly useful in TA settings.[27,36] Our participants mentioned minimal resources available at their clinical site to care for and support patients with MHCs, and felt they needed to seek out resources or find options outside of their employer to utilize for patients in need of specialty services. Research shows that ATs believe the availability of easily accessible mental health providers is a critical factor for providing better care to patients.[27] Moreover, the most successful work place interventions to improve employee mental health were those aiming to reduce harassment, manage work load, and define roles.[36] Further, interventions targeting improvement in communication and collaboration, return-to-work protocols, and psychotherapy are universally suggested.[36] Therefore, action should be taken to elevate the resources provided in TA settings and improve organizational structure for more efficient and effective patient care.

Limitations and Future Research

Limitations regarding generalizability and recall bias exist in this research study. The NATA Research Database had 274 participants from all tactical athlete job settings which included military, law enforcement & government, police, fire, and public safety. Our participant sample was mostly employed in the military setting which limits the generalizability of their job experiences across other sectors of tactical athletes. Additionally, the COVID-19 pandemic may have impacted ATs experiences working in TA settings, with potential increases in patients with MHCs, and therefore influenced the results as several of the participants had only recently began working in this job setting. Finally, research volunteer bias may also be of concern as the ATs that responded to participate may be the most open to discussing mental health and healthcare which may not be the same introspective experience for all professionals working in tactical athlete settings.

Intentional efforts focused on implementation research must be prioritized in the law enforcement, military, and public safety setting. This may include the integration of ATs that have completed residency training and are board certified specialist in behavioral health. Additional research should explore mechanisms to have ATs assist and lead policy development related to mental health for the TA settings to achieve optimal patient outcomes and provide guidance to providers in these jobs.

CONCLUSION

Currently, ATs employed in TA settings do not feel completely proficient in implementing psychosocial techniques into healthcare plans for patients with psychological distress and concerns, and there are not sufficient and accessible resources to utilize for these patients. Because of this, ATs in TA settings require additional and advanced training in

behavioral health management to apply to their clinical practice in collaboration with psychological healthcare providers.

REFERENCES

1. American Psychological Association. APA Dictionary of Psychology. https://dictionary.apa.org/mental-health. Published 2022. Accessed June 1, 2022.
2. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. *World psychiatry.* 2015;14(2):231.
3. Torquati L, Mielke GI, Brown WJ, Burton NW, Kolbe-Alexander TL. Shift work and poor mental health: A meta-analysis of longitudinal studies. *Am J Public Health.* 2019;109(11):e13-e20. doi:10.2105/ajph.2019.305278
4. Scofield DE, Kardouni JR. The tactical athlete: A product of 21st century strength and conditioning. *Strength Cond J.* 2015;37(4):2-7. doi:10.1519/ssc.0000000000000149
5. Michaelides MA, Parpa KM, Henry LJ, Thompson GB, Brown BS. Assessment of physical fitness aspects and their relationship to firefighters' job abilities. *J Strength Cond Res.* 2011;25(4):956-965. doi:10.1519/JSC.0b013e3181cc23ea
6. Orr R. Load carriage for the tactical operator: Impacts and conditioning – a review. *Journal of Australian Strength and Conditioning.* 2012;20:23-28.
7. United States Army. Army Combat Fitness Test. https://www.army.mil/acft/. Published 2022. Accessed June 1, 2022.
8. Nazari G, MacDermid JC, Sinden K, et al. Prevalence of exposure to critical incidents in firefighters across canada. *Work.* 2020;67(1):215-222. doi:10.3233/wor-203267
9. Lyytikäinen K, Toivonen L, Hynynen E, Lindholm H, Kyröläinen H. Recovery of rescuers from a 24-h shift and its association with aerobic fitness. *Int J Occup Med Environ Health.* 2017;30(3):433-444. doi:10.13075/ijomeh.1896.00720
10. Chin DL, Zeber JE. Mental health outcomes among military service members after severe injury in combat and tbi. *Mil Med.* 2020;185(5/6):e711-e718. doi:10.1093/milmed/usz440
11. Jahnke SA, Poston WS, Haddock CK, Murphy B. Firefighting and mental health: Experiences of repeated exposure to trauma. *Work.* 2016;53(4):737-744. doi:10.3233/wor-162255
12. Kaikkonen P, Lindholm H, Lusa S. Physiological load and psychological stress during a 24-hour work shift among finnish firefighters. *J Occup Environ Med.* 2017;59(1):41-46. doi:10.1097/jom.0000000000000912
13. Webber BJ, Flower AM, Pathak SR, et al. Physical and mental health of us air force military training instructors. *Mil Med.* 2019;184(5/6):e248-e254. doi:10.1093/milmed/usy418
14. Jones S, Agud K, McSweeney J. Barriers and facilitators to seeking mental health care among first responders: "Removing the darkness". *J Am Psychiatr Nurses Assoc.* 2020;26(1):43-54. doi:10.1177/1078390319871997
15. Haugen PT, McCrillis AM, Smid GE, Nijdam MJ. Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *J Psychiatr Res.* 2017;94:218-229. doi:10.1016/j.jpsychires.2017.08.001

16. Purba A, Demou E. The relationship between organisational stressors and mental wellbeing within police officers: a systematic review. *BMC Public Health.* 2019;19(1):1286. doi:10.1186/s12889-019-7609-0
17. Acosta JD, Becker A, Cerully JL, et al. *Mental health stigma in the military.* Santa Monica, CA: RAND Corporation; 2014.
18. Moreland JJ, Coxe KA, Yang J. Collegiate athletes' mental health services utilization: A systematic review of conceptualizations, operationalizations, facilitators, and barriers. *J Sport Health Sci.* 2018;7(1):58-69. doi:10.1016/j.jshs.2017.04.009
19. Stiller-Ostrowski JL, Ostrowski JA. Recently certified athletic trainers' undergraduate educational preparation in psychosocial intervention and referral. *J Athl Train.* 2009;44(1):67-75. doi:10.4085/1062-6050-44.1.67
20. Radzak KN, Sedory EJ, Hooper M, Kasamatsu TM. Defining athletic training in the military setting: A survey investigation into professional characteristics, preparation, and barriers in clinical practice. *J Athl Train.* 2020;55(5):522-531. doi:10.4085/1062-6050-213-19
21. Bowman TG, Dodge TM. Frustrations among graduates of athletic training education programs. *J Athl Train.* 2013;48(1):79-86. doi:10.4085/1062-6050-48.1.01
22. Mazerolle SM, Dodge TM. national Athletic Trainers' Association-accredited postprofessional athletic training education: attractors and career intentions. *J Athl Train.* 2012;47(4):467-476. doi:10.4085/1062-6050-47.4.11
23. Hill CE, Knox S, Thompson BJ, Williams EN, Hess SA, Ladany N. Consensual qualitative research: An update. *J Couns Psychol.* 2005;52(2):196-205. doi:10.1037/0022-0167.52.2.196
24. Zakrajsek RA, Martin SB, Wrisberg CA. National Collegiate Athletic Association Division I Certified Athletic Trainers' Perceptions of the Benefits of Sport Psychology Services. *J Athl Train.* 2016;51(5):398-405. doi:10.4085/1062-6050-51.5.13
25. Arvinen-Barrow M, Massey WV, Hemmings B. Role of sport medicine professionals in addressing psychosocial aspects of sport-injury rehabilitation: professional athletes' views. *J Athl Train.* 2014;49(6):764-772. doi:10.4085/1062-6050-49.3.44
26. Yang J, Peek-Asa C, Lowe JB, Heiden E, Foster DT. Social support patterns of collegiate athletes before and after injury. *J Athl Train.* 2010;45(4):372-379. doi:10.4085/1062-6050-45.4.372
27. Sudano LE, Miles CM. Mental health services in ncaa division i athletics: A survey of head atcs. *Sports Health.* 2017;9(3):262-267. doi:10.1177/1941738116679127
28. Young J, Neil ER, Granger K, Walker SE, Chadburn JL, Eberman LE. preparedness, confidence, and best practices in preventing, recognizing, managing mental health cases in NCAA institutions. *J Athl Train.* 2020. doi:10.4085/129-20
29. Zakrajsek RA, Fisher LA, Martin SB. Certified athletic trainers' understanding and use of sport psychology in their practice. *J Appl Sport Psychol.* 2017;29(2):215-233. doi:10.1080/10413200.2016.1231722
30. Cormier ML, Zizzi SJ. Athletic trainers' skills in identifying and managing athletes experiencing psychological distress. *J Athl Train.* 2015;50(12):1267-1276. doi:10.4085/1062-6050-50.12.02
31. Manwell LA, Barbic SP, Roberts K, et al. What is mental health? Evidence towards a new definition from a mixed methods multidisciplinary international survey. *BMJ Open.* 2015;5(6):e007079. doi:10.1136/bmjopen-2014-007079

32. Putukian M. The psychological response to injury in student athletes: a narrative review with a focus on mental health. *Br J Sports Med.* 2016;50(3):145-148. doi:10.1136/bjsports-2015-095586
33. Bu D, Chung PK, Zhang CQ, Liu J, Wang X. Mental health literacy intervention on help-seeking in athletes: A systematic review. *Int J Environ Res Public Health.* 2020;17(19). doi:10.3390/ijerph17197263
34. Czeisler M, Lane RI, Petrosky E, et al. Mental health, substance use, and suicidal ideation during the COVID-19 pandemic - United States, june 24-30, 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69(32):1049-1057. doi:10.15585/mmwr.mm6932a1
35. Neal TL, Diamond AB, Goldman S, et al. Interassociation recommendations for developing a plan to recognize and refer student-athletes with psychological concerns at the secondary school level: a consensus statement. *J Athl Train.* 2015;50(3):231-249. doi:10.4085/1062-6050-50.3.03
36. Sharma A, Sharma SD, Sharma M. Mental health promotion: a narrative review of emerging trends. *Curr Opin Psychiatry.* 2017;30(5):339-345. doi:10.1097/yco.0000000000000347

Table 1. Demographic Information

Pseudonym	Age	Gender	Job Setting	Years of Certified Experience	Highest Degree Earned
Andrew	33	Man	Law Enforcement	2	Masters
Bambi	28	Woman	Public Service	2	Doctorate
Drew	60	Man	Law Enforcement	20	Bachelors
Bobby	35	Man	Military	2	Bachelors
Brooke	33	Woman	Military	2	Bachelors
Carrie	30	Woman	Military	1	Masters
Danni	37	Woman	Military	3	Masters
Elizabeth	28	Woman	Military	1.5	Masters
Fang	60	Man	Military	1	Specialist*
Grace	38	Woman	Military	9	Masters
Lily	28	Woman	Military	4	Masters
Mateo	35	Man	Military	1.5	Masters
Mikey	41	Woman	Military	1	Masters
Pat	33	Man	Military	1	Masters
Theod	28	Man	Military	0.5	Masters

*Participant identified as having a specialist degree but did not provide additional information.

Table 2. Interview Protocol

Demographic Questions	1. What is your age? 2. What is your gender 3. What job setting do you work in? a. Military, Police, Fire, Public Safety, Other 4. How long have you worked in the tactical athlete sector? 5. What is your highest degree earned?
Experience Questions	1. Overall, why did you choose to enter this job setting? a. Describe your preparation working in the tactical athlete sector as you transitioned into this job setting. 2. Tell me about your education and training relative to mental health from your professional or post-professional education. 3. Specifically, tell me about your preparation managing mental health aspects as you started in the tactical athlete settings. a. Has this changed over time? If so, how? 4. Describe what on-the-job training you were provided specific to recognizing or referring mental health conditions in the tactical athlete setting. a. Do you believe these trainings or any other specific training you have done should be integrated into athletic training programs to better prepare future athletic trainers entering the tactical athlete setting? 5. In your current role, have you managed a patient with a mental health condition? a. If yes i. Describe your role. ii. Did you feel prepared to help the patient(s)? iii. What other providers did you interact with in your setting to help the patient(s)? iv. What resources were available and/or provided to these patient(s) at your clinical site? v. Was there a policy in place to help guide your decision making? b. If no i. If a patient were to present, what do you think your role would be? ii. Do you feel prepared to help future patient(s)? iii. What other providers do you believe you would interact with in your setting to help these patient(s)? iv. What resources do you believe are available to these patient(s) at your clinical site? v. Do you have a policy in place to help guide your future decision making? 6. What do you believe is the main difference in addressing mental health issues for traditional athletes when compared to tactical athletes? 7. Tell me what you believe is the area you were least prepared to do relative to mental health specific to tactical athletes. 8. What advice would you give future athletic trainers wanting to work with tactical athletes relative to mental health?
Conclusion	1. Is there anything else you feel I should know about either your current job working with tactical athletes or the role of the athletic trainer specific to mental health that we have not covered?

Table 3. Frequency Counts by Domain and Category

Domain	Category	Count (n=15)	Label
Population Norms	Stigma	12	Typical
	Mental Health Concerns	11	Typical
Provider Preparation	Educational Experiences	15	General
	Formal Employer Resources	15	General
	Self-Education	13	Typical
	Suggest Professional Development	15	General
Provider Context	Unfamiliar Experiences	13	Typical
	Comparative Competency	15	General
Structure of Job	Lack of Policy	14	General
	Role Delineation	14	General
	Collaboration	13	Typical

Table 4. Supplemental Quotes

Domain	Category	Participant Pseudonym	Quote
Population Norms	Stigma	Lily	"Yes, I think there is a little bit more of a stigma, and something that can affect the stigma is that it can affect their careers. It is not just being able to be physically active."
		Mateo	"I think there is an element of having to tough through things and not admit weakness. I would say that it is enhanced in the tactical population compared to your athletic population. The hesitancy to seek care again, having to be tough, and get through situations."
	Mental Health Concerns	Bambi	"We know from the research that there is very specific mental health ailments or issues that tactical athletes tend to deal with on at a higher rate than a different population…anxiety, depression, PTSD, alcoholism."
		Bobby	"There is a cultural problem – very high levels of stress, poor sleep, and dietary habits. There is an off-tempo battle rhythm for them, so there is a lack of consistency. They are also expected to be very high performers. There is the normal anxiety that goes along with that."
Provider Preparation	Educational Experiences	Mikey	"The mental health preparation when I was a student way back when was very minimal. It was a chapter in a book and that is not true to life."
		Theod	"In my bachelor's degree, I would say mental health was not really ever discussed in terms of provider healthcare. We were told to be aware of it, but never went in depth on what that means. Then, with my master's program, there was never really any direct education on it either. It was more discussed in bits and pieces in other classes, where we were talking about understanding patient demographics and how that affects you working as a provider. It was never really directly discussed."
	Formal Employer Resources	Pat	"[The tactical athletes] get full spectrum as far as athletic training. They get general medical type stuff and they get mental health."
		Danni	"I do not think I was really provided with any training here. When I was at West Point, we went through a suicide prevention course which we did annually there, but as far as being [at my current job], I was not provided with any resources."
	Self-Education	Carrie	"A lot of my preparation was mostly personal relationships and communicating with individual people about the setting."
		Danni	"When I got to base, no one talked me through it. It is all research that I needed to do on my own."
	Suggested	Lily	"Be prepared. Be open to still learning and keep

	Professional Development		up to date with the steps that need to be taken or red flags that are indicators. Then, building rapport with your tactical athletes and knowing all the resources that can possible help."
		Mateo	"I do not think mental health training specific to the tactical setting would be appropriate for athletic training programs as a whole. I think keeping it to more general populations would be good. But the unique demands of the tactical setting changes a lot from what most athletic trainers are going to see. So, I think specific mental health training should fall more within the military or possibly even the contracting companies to prepare you for that."
Provider Context	Unfamiliar Experiences	Grace	"You are hearing them talk about self-harm, you are hearing about alcoholism and how they are coping, whether it be drugs, or alcohol, or guns, or tattoos, or multiple sexual encounters, and it is just so far out of the wheelhouse and is just uncomfortable talking about it because I do not know how to help them."
		Drew	"As far as the tactical setting, they are older. This is going to be career related and could be life threatening."
	Comparative Competency	Andrew	"Tactical athletes can possibly kill people. Athletes, in most normal situations, unless it is something crazy, they do not. With athletes, it is more accidental death, like a football player lowers his head and has a cervical spine fracture that can result in paralysis or death. Tactical athletes are put in situations where they have to rely on their training, their instincts, and they have more of a possibility to experiences PTSD because they might have to shoot someone or tase someone."
		Fang	"I would never have to ask a coach to have the athlete go see the sports psychologist. Whereas here, you would have to ask and inform the Sergeant Major that this guy needs to go see a mental health provider."
Structure of Job	Lack of Policy	Pat	"I think if we got together and had a set plan, 'if I see this or I see that, how do I report that to you or hot do I get that to you', it would be pretty beneficial."
	Role Delineation	Brooke	"It is recognizing the signs that someone is in mental distress, and trying to quickly decide whether it is life threatening mental distress, or if it is just something that we can hit that was just smaller, and then locating who is the best person to get a hold of."
		Elizabeth	"Yes, just referral out and [the patient] works with

			their provided counselor. Then, I would do check-ins with [the patient] with certain questions to ask how they are doing in regard to their injury. But other than that, there is really not that much of a crossover between us and the counseling practices we have in place, which I would really like to see there be more communication."
	Collaboration	Andrew	"I think a department of athletic training should actually have on staff counselors that have been taught the three-year degree that you get in a master's program and then you graduate, and you have to take your boards and get licensed. I do think they should have two or three of those people."
		Brooke	"I always work within a team, I never try to take something on like that by myself."

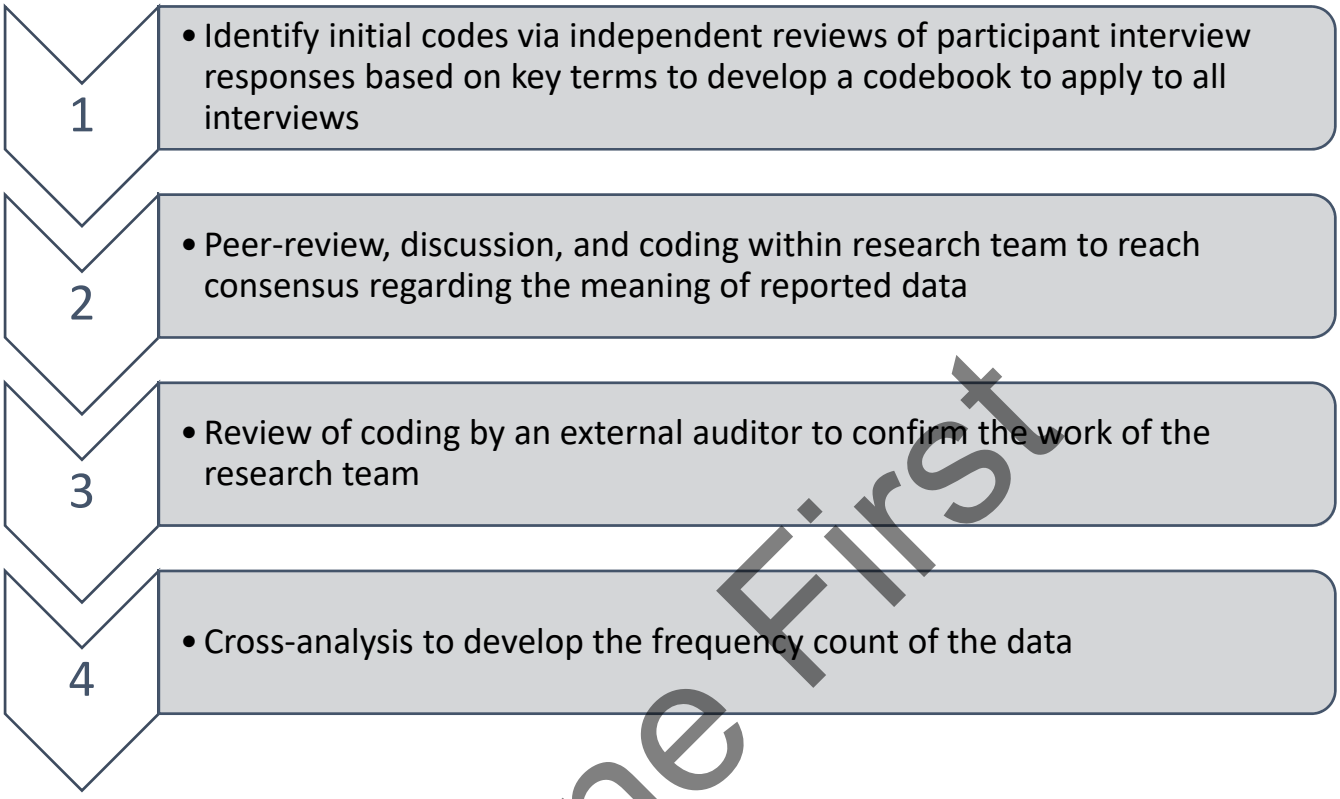

Figure 1. Consensual Qualitative Research Process