

Transcending return-to-sport for injured handball players in Masvingo tertiary institutes, Zimbabwe

Chimonero Prince

Department of Physical Education and Sports Sciences,
Great Zimbabwe University

***Corresponding Author**

Chimonero Prince, Department of Physical Education and Sports Sciences,
Great Zimbabwe University.

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Abstract

The smooth transition of injured players from rehabilitation back to active participation has become a worrisome phenomenological service gap for sports medicine professionals. Pre-mature ending of players' sports routes and aspirations have been reported. This study sought to examine confounding intransigencies that often entrap players' smooth transition from rehabilitation to return-to-sport contexts in Zimbabwean Tertiary Handball between 2018 and 2021. High pandemic injury rates among handball players prompted the researcher to conduct this post-injury study. Furthermore, it sought to ascertain the extent to which the 'sport net' of health service providers impacted on players' rehabilitation and return-to-sport phases. The study was a descriptive, prospective cohort design anchored on quantitative approach. The population was 453 from which 228 were drawn. Study participants were coaches, fitness trainers, team physiotherapists, team psychologists and players from 10 selected male and female ZITCOSA handball teams. Stratified random sampling was adopted in selecting respondents for the study. Questionnaires were used as data collection tools. Stratified random sampling was used to select study participants. A convenient size for the study was determined through Taro Yamani's (1970) formula. Bowley's proportional allocation formula was then used to statistically allocate participants into their particular strata. Data analysis was performed using IBM SPSS Statistical Version 23 and presented on multi-part graphs. Emerging findings from the study revealed significant service-gaps between rehabilitation and return-to-sport transitional episodes among health service professionals. Subsequently, players' pre-defined rehabilitation routes pre-maturely ended. Sports clinicians therefore, require further sports medicine clinical development workshops to boost their skill resource bases to effectively trim down problems associated with players' rehabilitation-return-to-sport transitional phases.

Keywords: Rehabilitation, Return-to-sport, Sports Net, Transition, Sports Clinicians.

Introduction

Rehabilitation serves to bridge the gap between out-of-sport context and return-to-active cycle of participation. While sports clinicians constitute the 'sportsnet' accountable for re-engaging players' psychological, physiological, emotional and social constructs, transitionalising rehabilitation and return-to-active-sport stages significantly determines players' return or non-return to sport contexts. Although numerous training regimens have been forth suggested to re-orient athletes' dented physiological, psychological and emotional instincts, a smooth transition from the rehabilitation phase to active sport has always been a problematic viaduct for sports clinicians. Confounding intransigencies exist that entrap players' smooth transitionalised comeback to competitive fora. Thus, addressing this gap could insulate athlete's physiological resolution to re-claim safe comfort zones upon return-to-active sport.

Research questions

- The following research questions guided this study
- How far does pressure to return-to-sport impact on recuperating players' psychological instincts?

- What factors determine players' transitional inter-links from rehabilitation to return-to-sport?

Review of related literature

Impact of pressure to return-to-sport for injured players: he issues of pressure to return-to-sport is reported to be a common injury-related challenge among athletes and coaches. Research studies show that competitive athletes who exhibit high levels of commitment in sport contexts are susceptible to external pressures from coaches, teammates or training partners to return-to-sport after an injury, before they are physiologically and psychologically ready [1]. Research also indicates that tissue healing time frames for ligament ruptures range between 6-12 weeks. Findings by however, indicate that more than 50% of ankle sprains in high school athletes recover in less than a week for the athlete to be cleared to return-to-play. Thus, variations could also be attributed to biological healing responses, quality of service, type and severity of injury the athlete will undergo.

Pressure induced by competitive schedules and uncertainties about both sporting and medical consequences are a cause for

concern [2]. Charlesworth and Young's [2004] study of English female university athletes revealed that they were subjected to pressure to return from significant others, in particular coaches and peers. This pressure influenced their decisions to play while in pain or to return prematurely from an injury. Observed that in recent years elite athletes have been under immense pressure to make an expedited return to sport following injury [3]. Advice on the need for health care providers and sport organisations to be aware of this pressure in order to ensure athletes are medically and physically prepared for a return to full activity [3]. As observed playing when hurt can further magnify the index injury resulting in chronic cases [2]. Consequently, this might lead athletes into pre-mature entry of active cycle of participation without having fully served the rehabilitation cycle. This can result in chronic degenerative and acute injuries which are difficult to abate.

investigation revealed that coaches were aware of how pressure influences affected athletes' perceptions regarding their positions on the sporting calendar. Time pressures to return-to-sport were linked to personal endorsement and athletes may not fully serve rehabilitation due to low self-confidence in skills proficiency, feelings of isolation, or drop in fitness level. From a practical perspective, sports medicine professionals need to guard against athletes' tendencies towards self-authored pressures to return-to-sport, for meaningful intervention approaches to be instituted [4].

Results from a study conducted by, among three hundred and twenty-eight (328) male and female athletes from nineteen (19) USA collegiate teams, revealed that a quarter of them (25%) were subjected to return-to-sport pressure from coaches, teammates, parents and fans. Previously, had attributed this pressure during players' recovery of social and competitive pressures which he regarded as "an internal experience in response to external demands". The middle ground that takes appears to be common in that regular team athletes were the most subjected group to pressure from team fans to continue playing while in pain., concede that influence of indirect pathways of losing competitive opportunities, social identity and values connected with sport participation could subject athletes to heightened pressures to return-to-sport even if they have not completed the prescribed healing cycle [3]. This justifies why under-reporting of symptomatic possibilities of concussion [injury] still resonates among athletes, due to pressure from coaches, fans, and team mates; [5]., on the other hand, refer 'systematic forces of pressure' that affect athletes, in that those in close proximity to multiple sources of pressure are less likely to play in pain than those with few sources of conduct. Pressure on athletes to return-to-sport is believed to be entrenched in their personal characteristics and previous experiences.

Sources of pressure to pre-maturely clear athletes' return-to-sport have been documented. In study of 580 clinicians, 64.4% of them reported having experienced pressure from athletes to pre-maturely clear them to return-to-sport following a concussion. A number of 53.7% reported having experienced pressure from coaches, with 6.6% having similar pressure from

other clinicians. Clinicians also received immense pressure from coaches when their departments were supervised by the athletics department [54.3%], instead of their medical institution [40.2%]. Female clinicians reported greater pressure from coaches [61.1%] than male clinicians did [49.3%]. In a parallel study conducted by among 11 injured South Korean athletes, the ego-oriented climate of forced hierarchy and power dynamics within the specialist system precipitated strained inter-personal networks between athletes and sports medics. Recuperating athletes reported their insecurity from forced engagements in physical risky play as both the uninjured teammates and sports medics showed no concern for allowing them full recovery on incurred injuries. Subsequently, their index injuries were re-ignited leading to pre-mature ending of their rehabilitation routes [6]. A possible explanation could be that the core-team of sports medics lacked expertise and the necessary guidance for players' full resurgence. It is also possible that scheduled crucial matches could have tempted coaches to seek for athletes' early clearance for them to re-enter into active participation. Suggests furnishing athletes with ample education on their recovery routes from injury onset could help abate stress connected with physiological and medical demands [6].

The level of competition critically determines the mode of pressure players, technical officials and health service providers are entrenched in. Higher competitive intensities, elevated injury sustenance rates and the subsequent laden-burden service looming 'red zone' on care requirements, often puts undue pressure on health service providers and injured athletes. Study on Men's World Handball Cup in France confirmed high epidemiology of contact [45%], overuse [30%] and non-contact cases which led players to suspend matches. Similarly, reported severe [50%], moderate [31%], slight [30%], mild [20%] and minimal [16%] injury cases among German male and female handball players. Further, confirmation of 49.1% contact trauma cases from tackles and 12.7% shoulder rotary deficiencies from attackers during the 24th Men's Handball Championships in Qatar, substantiate direct, indirect, societal and social economic budgetary costs on health resources and service burden on the rehabilitation-return-to-sport phases [7, 8]. This requires meticulous services and collaborative efforts from well-resourced sports clinicians to address this gap.

Transitional inter-links from rehabilitation to return-to-sport

Suggestions to enhance athletes' compliance to rehabilitation regimes have been put forward. For instance, developed a return-to-action-based protocol to re-orient and advance injured athletes' mindfulness, acceptance and self-compassion to increase Commitment Therapy that envisions practitioners with replica and practice experiential acceptance and commitment ethics, to establish critical therapeutic links so that their attitudinal focus is athlete-centric strongly opines that mindfulness and acceptance-based practices could be significant interventional approaches during rehabilitation. Further, prevailing motivational climates can critically influence athletes' adherence and commitments to prescribed regimens [9]. In this respect, reported that coaches, teammates and friends were critical pace-setters

to commitment dimension from motivational climates that insulate perceptions of investments, involvement opportunities and costs in sport [10]. In a similar study, reported higher medical compliance rates among 36% German elite handball players in spite of the severity their varied physiological challenges [11]. More importantly, commitment, agreement, regular meetings and exchange of ideas among sports medicine professionals are essential elements when monitoring sports injury during players' rehabilitation [12].

It implies that heightened psychological flexibility mechanisms trigger athletes' behavioural changes. In subsequence, commitment dimension, as a construct, psyches up the recuperating athletes to keep within the confines of athlete-therapist relations which apparently, integrates their socio-psychological, emotional and physiological capacities during their healing cycle.

To productively engage recuperating athletes, have suggested 4 critical phases athletes should undergo. First, Creative Hopelessness and Value Identification [motivate and engage them in value-driven behaviours aligned with rehabilitation], second, Present moment awareness and Acceptance of physical sensation [significance linked to current circumstances during rehabilitation, aversive beliefs and feelings and sensations as value events], third, self as context, perspective faking, defusion of thoughts and feelings [endure threatening situations] and fourth, self-compassion and commitment action [self-proclaimed authorship in view of current rehabilitation]. As observed by if athletes' desires and beliefs are not put in the design of a rehabilitation plan, this may foster non-adherent behaviours with subsequent lengthened recovery timelines and missed sessions.

Methodology

In this section the research methodology used during the study is presented.

Research Design

The study employed the descriptive, prospective cohort design anchored on the quantitative approach.

Population and sampling

Its study population was 453 participants from which a sample of 228 participants was drawn. Participants were coaches, physiotherapists, psychologists and players from selected tertiary institution teams in Masvingo Province were drawn. Study participants were drawn using stratified random sampling. A convenient size for the study was determined through Taro formula. Bowley's proportional allocation formula was then used to statistically allocate participants into their particular strata.

Instruments used

A questionnaire was used for data collection.

Validity and Reliability

Cronbach alpha statistics was used to determine the internal consistency of the questionnaire items before the instrument was used in the field. The test yielded the Cronbach's Alpha of 0.8 which indicates acceptable reliability. Pilot-testing of the instrument was done prior to its administration to the intended respondents.

Statistical Treatment of Data

Collected data was statistically presented on tables and inferentially analysed.

Ethical considerations

Ethical clearance was sought from the Teachers Colleges Authorities. Informed consent was sought from study participants drawn from the selected research sites. Anonymity and Confidentiality of data were established to meet ethical standards.

Results and discussion

In this section results based on the 2 research questions that guided the study are presented.

Research question 1: How far does pressure to return-to-sport impact on recuperating players' instincts?

Figure 2 below explicates the impact of pressure to return-to-sport players were subjected to while serving their rehabilitation routes:

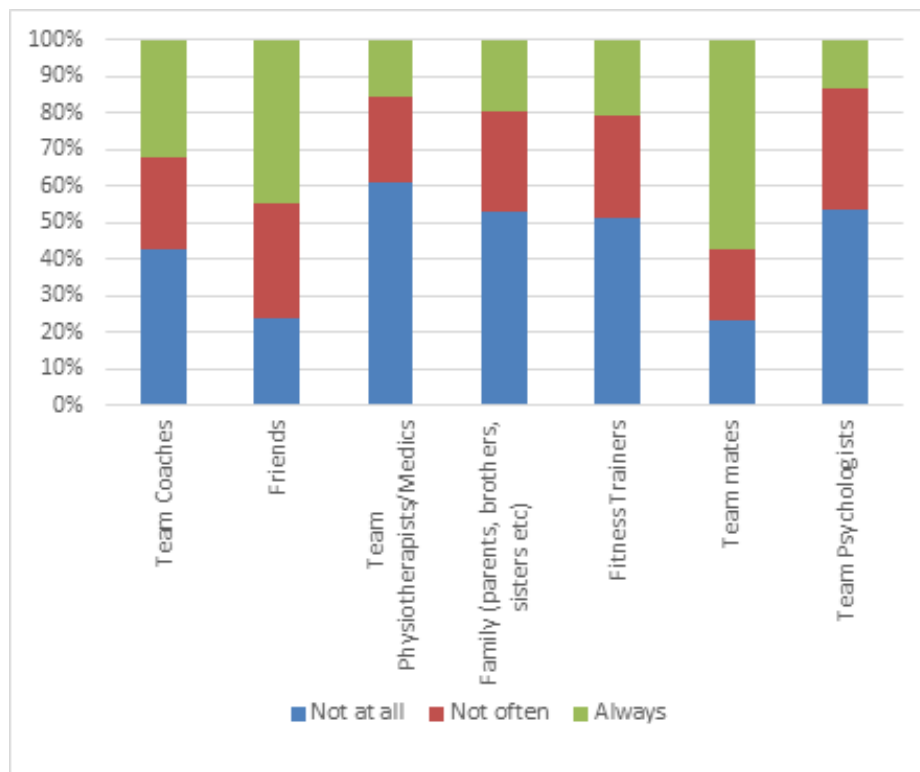


Figure 2: Sources of pressure to return to sport during rehabilitation

Figure 2 summarises the levels of sportsnet pressure sources to return to sport received by players while still under rehabilitation. For those who indicated that they always received pressure, the sources were mostly team mates [56%], friends [45%] and Team Coaches [31%]. Among those that indicated that they never received pressure to return to sport, the sources were Team Medics/Physiotherapists[61%], Fitness Trainers [51%] and Team Psychologists [52%]. Those who did not often pressurise players' return to sport were Team Psychologists [32%], followed by Friends [29%], then Coaches and Family with 25% apiece, Fitness trainers [19%], Teammates [17%] and lastly, Physiotherapists/Medics with [13%]. In spite of the positive environments that can be brought about during the rehabilitation-return-to-sport phases, however, not all players are in a position to experience their comfort zones due to expertise inconsistencies from sports clinicians.

The 31% for coaches who pressurised pre-mature return to sport may suggest that coach pressure comes in different forms. It appears such coaches were tempted to rush fitness trainers and team medics in making pre-mature return to sport clearances. These could be, in part, due to knowledge deficiencies regarding injury risk management or misunderstanding tendencies directed towards sheltering their sporting turf. Thus, sacrificing athletes' health for the sake of personal interests led to high injury prevalence rates, yet novice players are mistakenly taken to be professional players in Tertiary Institutes. Besides that, the pressures to win in collegiate sport [handball] seem to have taken a great toll for the past 6 years in order to safeguard both individual and institutional sporting prowess. This could be due to external factors such as incentives and fear to lose the job. Kroshus [2015] reported a similar tendency in which 53.7% of

athletes were subjected to immense pressure to return to active sport from coaches while they were still serving their rehabilitation routes. The same study [Kroshus, 2015] reported that 54.3% of clinicians were pressured by coaches to clear athletes to participate in matches. As Kroshus observes, 'systematic forces of pressure' from those in close proximity dented players' rehabilitation routes which closely align with results from this study.

In their studies, warns of indirect pathways of losing competitive opportunities, social identity and values connected with sports participation which could potentially pre-dispose athletes to heightened pressure to return-to-sport [3]. also recognised this increasing popularity in handball and the subsequent high influx of players into the sport that significantly contributed to high injury epidemiology rates. Although not many of fitness trainers in this study discussed how the demands on coaches to win could result in coaches pressurising fitness trainers, both parties need to be conversant with how external factors could impact their work environments. Fitness trainers and coaches need to guard against internal and external dynamics that they might be entrenched in, so that their rehabilitation prescriptions are aligned to recuperating players' current physiological status.

The culture of allowing players to participate in immense pain and risk should not be an in-road or scapegoat through which personal or an institution's achievements are arrived at [13]. As indicates, pressure subjected to players during recovery of social, and competitive pressures are attributed to internal experience in response to external demands [14]. study further substantiates a similar predicament in which 25% of athletes from 19 USA Collegiate teams were subjected to return-to-sport pressure from coaches, teammates, parents and fans. The same

can also be said about findings from this study. A further scrutiny of findings seems to have normalised injury and pain, as shown by high numbers of coaches, team mates and friends who forced players to divert from their rehabilitation routes to participate in important matches. This means that players were forced to adopt the culture of participating in a dilemma of ‘risk-pain-injury-paradox’ that did not fully re-enact their physiological, psychological, social and emotional resources. The pressure and cost of participating while injured seem to be a highly ingrained tenet that served to preserve players’ identities under the influence of sportnet around them [coaches, friends, team mates and family], whose ideas fall within the culture of participating in pain and sacrifice in sport. Driven by personal motives, most athletes in this study seem to have operationalised within the frameworks of ‘sport culture’ and adopted a self-authored endorsement to sacrifice playing while in pain and injury. Consequently, ignition and re-ignition of multiple chronic overuse and severe injuries was inevitable.

Interestingly, most fitness trainers and coaches in collegiate set-

tings constitute part of sports medical teams that consensually decide whether to allow a player to continue participating in pain and injury. Consequently, coaches and fitness trainers should be good advocates with regard to players’ health and safety issues, so that their actions are affirmed with an ethical-integrity orientation. Although stresses on the significance of guarding against athletes’ tendencies towards self-authored pressure to return-to-sport for meaningful intervention approaches, results of this study, however, appear to show lack of such practical epithet among most coaches and fitness trainers. This could be why in most research studies, under-reporting suspicions regarding injury still resonates among athletes due to pressure from fans, coaches and teammates [5].

Research question 2: What factors determine players’ transitional inter-links from rehabilitation to return-to-sport?

Figure 2 below explicates major determinants of rehabilitation-return-to-play transitions

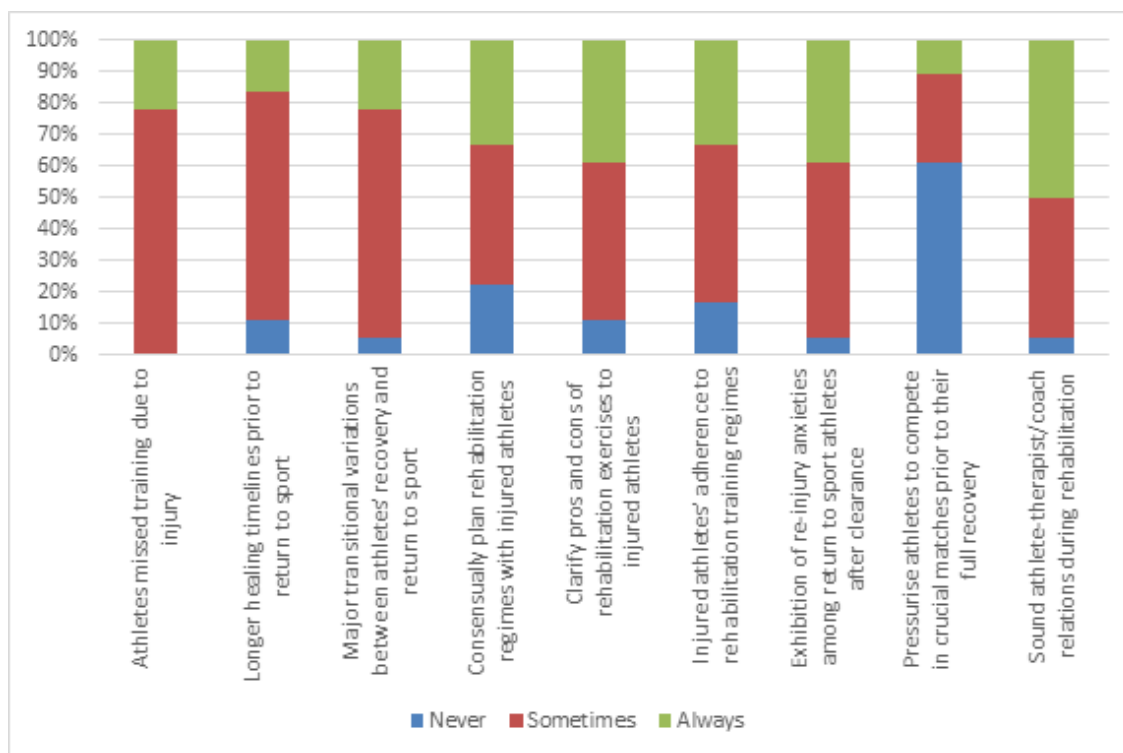


Figure 1: Determinants of rehabilitation-return-to-play transitions

When respondents were asked to evaluate players’ rehabilitation time frames regarding return-to-sport, the majority of players indicated that they sometimes miss training because of injuries [78%]. Thus, results are indicative of a decisive segment for players’ return or non-return to sport contexts which is determined by injury severity and quality of prescribed regimens. This high figure further suggests presence of a missing smooth transitional link between rehabilitation and return-to-sport phases, a viaduct that has to ensure continuity of players’ sporting endeavours. This seemingly unexamined segment of players’ predicaments, if not well explored, could lead to devastating after-effects on players’ life parttens. These results corroborate with findings on

Men’s World Handball Cup in France, in which an epidemiology of contact injuries [45%], overuse injuries [30%], non-contact trauma cases [10.8%] and rules violation cases caused players to suspend matches [7]. Similar predicaments were also announced in study of Germany male and female adolescent handball players, in which severe injuries [50%], moderate [31%], mild [20%], slight [30%] and minimal [16%] cases were confirmed [15]. The same can also be noted from Anderson and Associates (2018), who announced 49.1% and 12.7% contact trauma cases from tackles and shoulder rotary problems among attackers respectively during the 24th Men’s Handball Championships in Qatar.

Pertaining to players' involvement in regime planning, a high proportion of respondents highlighted that they sometimes [48%] or always [32%] plan such rehabilitation regimes in consultation with the injured players. This is in spite of a minority segment of respondents [20%] that did not consult the players and felt that the planning aspect should be expert-based. This finding reveals constrained athlete-therapist relations, which could possibly conceal health service providers' professional short-comings that could heavily impact on players' adherence behaviours towards prescribed rehabilitation regime protocols. Besides, this could evoke treacherous and unholy environments which are not supportive of the critical transitional gap of rehabilitation-return-to-sport and if not carefully managed, could mess up athletes' hope pathways and future aspirations in sport. This concurs with whose study results among 11 South Korean injured athletes exposed them to an ego-oriented climate of forced athletic specialist hierarchy system of power dynamics. Consequently, athletes felt treated as replaceables and isolated from coaches, other authority heads and families, whom they believed could have had a concenseous input regarding their rehabilitation [6].

Although the majority of coaches and trainers reported that they never put pressure on players to compete in important matches before full re-enactment of their physiological and psychological resources

Never, 60%; Sometimes, 29%, some of them do so [11%], this gives an impression that some coaches and fitness trainers still cling to the old adage of 'winning at all costs' that exterminates athletes' health statuses in preference of personal gains. The figure of 11% pressure, is however, about 5-6 times lower than the 53.7% announced by, who reported mounting pressure from coaches and clinicians [64.4%] to pre-maturely clear athletes from 19 USA collegiate teams while they were still serving their rehabilitation routes. Conversely, the varying results could be attributed to different backgrounds and settings in which studies were conducted. All the same, this study results fall within the frameworks of 'systematic forces of pressure' to participate in pain as explained in various studies, in which athletes' health is sacrificed in order to please sports-inclined persons [5,14].

The study's 60% of trainers and coaches that never pressurise or sacrifice players for crucial matches prior to full medical clearance emphasise a positive significant perception that could increase the degree to which medical care is accepted and adhered to. This reveals the cost-effectiveness on the awareness of injury risk management practices which are a measure to ascertain the worthiness of services rendered to injured athletes by health service providers. Thus, results confirm findings by who advance that prevailing motivational climates critically determines players' adherence and commitment to prescribed rehabilitation regimens [9]. Similarly, observes that commitment derived from coaches, teammates and friends on collegiate athletes can potentially exhibit higher perceptive climates which eventually illuminate heightened perceptions of investments and involvement opportunities. Thus far, commitment, agreement and clear inter-personal networks should serve as critical elements when

monitoring athletes by multi-disciplinary team during rehabilitation [12].

Overwhelmingly, a high proportion of respondents [95%] intimated that they have solid relationships with injured players during the rehabilitation episode, with the exception of 5% who indicated strained relationships. Thus, the essence of athlete-inclined medicine and sound athlete-therapist affinity exists in most health service providers, while the smaller proportion might be predictive of lack of professional proficiency. Hence, the existence of pre-conceived knowledge gap in some professional quotas has been unearthed that should smoothly connect rehabilitation-return-to-sports transition. However, solid relationships normally inter-connect with good communication networks yet 61% of respondents did not clarify the essence of rehabilitation-return-to-sport period which could be suggestive of a vital missing link on athlete-therapist frameworks. This depicts deficiencies regarding the burden-service gap due to lack of expertise among sports clinicians Longer healing time frames [72%] reported in this study have resulted in major transitional variations [72%] among recuperating players. Surveyed respondents indicated that an 18% for longer healing time frames resulted in a 23% transitional variation for the 'always' option, while 10% and 5% were for the 'never' options. This portrays the varying magnitudes of tissue damage incurred on players, which translate to variations in return-to-sport time frames and the need to prospectively and appropriately deal with individual dysfunctional facets.

To some extent, unclear clarifications [poor communication] on the essence of rehabilitation appear to be a major missing link. This is indicated by the majority of respondents who sometimes [50%] or never [11%] explained the pros and cons of rehabilitation so that they could increase compliance and adherence rates of players to laid down prescriptive regimens. Although highly regards inclusion of athlete's desires in the design of a rehabilitation plan to allow for their values that fosters adherent behaviours, findings of this study, however, appear not to value injured athletes' perceptive postures and inputs., Danita et al. (2016) and explicate Creative Hopelessness, Value Identification, Present Moment Awareness, Self-Concept and Commitment Action as basic tenets of rehabilitation that enlighten athletes' values, and enable their behaviour while injured which should be synchronised with the values. clearly validates the criticality of having short- and long-term rehabilitation in the design to allow for cues and actions with clear documentation of results, traceable rehabilitation progress subsequently leading to positive self-evaluation and self-satisfaction. This generates recuperating athletes' beliefs in the efficacy of treatment regimens leading to smooth transition to return-to-sport contexts.

High re-injury anxiety rates announced in this study [40%, always; 55%, sometimes] is clear attestation of prevailing pitiable services connected with rehabilitation-return-to-sport environments. These results have also been replicated in studies of a similar nature [16-22].

Conclusions

Emerging findings revealed a significant service-gap between the rehabilitation-return-to-sport transitional episodes among sports clinicians. Preferential attention was given to personal and institutional satisfaction as a protective measure to their sporting prowess than concerns regarding players' full resurgence to sport contexts. Subsequently, players' pre-defined rehabilitation routes ended pre-maturely eventually denting their hope pathways and future aspirations in sport. A significant association exists between rehabilitation-return-to-sport episodes due to poorly resourced sports medicine professionals and constrained athlete-therapist relations.

Recommendations

Sports medicine professionals need to place athletes at heart and provide individualised attention focusing on value-driven behaviours delved towards addressing severities of their rehabilitation concerns. Creating players' objective profiles and injury records should serve to provide traceable history of players' physiological defects that might compromise their participation upon their clearance to return-to-sport contexts. Regular workshops are essential to boost their skill resources which could effectively trim down problems connected with players' rehabilitation-return-to-sport transitional episodes.

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