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Age of First Exposure Does Not Affect Quality of Life in Rugby Players Over 50

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It is suggested that early adolescence (i.e., ages 10-12 years) is an important stage for brain development. As such, many studies have investigated the effects of repetitive head impacts (RHI) incurred before age 12, as measured by age of first exposure (AFE) to contact/collision sports, and their relationship with later in life neurological impairments which may diminish quality of life (QoL) and well-being. However, the research is mixed and limited to college-aged athletes or symptomatic middle-aged or older adults. **PURPOSE:** To determine the relationship between AFE to contact sports and measures of QoL in community rugby players over 50 years old. **METHODS:** Individuals who have played contact rugby completed an online questionnaire to ascertain self-reported AFE to contact sports and three measures of QoL and their subcomponents: the Brief-Symptoms Inventory 18 (BSI-18: Somatization, Depression, Anxiety), Short Form 12 (SF-12: Physical and Mental Component Scores (PCS & MCS)), and Satisfaction with Life Survey (SWLS). Participants were dichotomized into two AFE groups (<12 or ≥12). Data were not normally distributed so a Mann-Whitney U test was performed to compare QoL outcomes between AFE groups. **RESULTS:** 99 rugby players older than 50 (57.9 ± 5.7 years, range: 50-74 years, 88.8% male) participated in this study. There were no significant differences between AFE <12 and AFE ≥12 groups on all outcomes: BSI-18 Somatization (AFE ≤12: 1.88 ± 2.26 ; AFE >12: 1.81 ± 1.77 , $U=1,034$, $p=.770$), BSI-18 Depression (AFE ≤12: 2.16 ± 3.41 ; AFE >12: 2.38 ± 3.06 , $U=985$, $p=.497$), BSI-18 Anxiety (AFE ≤12: 1.93 ± 2.38 ; AFE >12: 1.81 ± 2.26 , $U=1,058$, $p=.917$), SF-12 Physical (AFE ≤12: 48.20 ± 8.66 ; AFE >12: 46.57 ± 10.40 , $U=998$, $p=.580$), SF-12 Mental (AFE ≤12: 51.78 ± 8.86 ; AFE >12: 54.21 ± 8.79 , $U=888$, $p=.169$), SWLS (AFE ≤12: 26.13 ± 5.09 ; AFE >12: 26.75 ± 5.74 , $U=986$, $p=.518$). **CONCLUSION:** Consistent with recent cohort studies in collegiate athletes, there was no observed difference on three common measures of psychological well-being and QoL in community rugby players over 50 based upon AFE to contact sports. However, later life potential consequences of RHI in rugby players remains to be elucidated. Supported by the University of Delaware's Unidel Distinguished Graduate Scholars Fellowship.