

**Table 2** Quality analysis of studies for the literature review

Study	Study design	Participants	Purpose of study	Treatment and intervention	Assessment and questionnaires	Main findings
Schneider et al. <sup>20</sup>	Single-blind randomized controlled trial	31 participants aged 12-30 years who were referred for participation	To determine if a combination of vestibular rehabilitation and cervical spine physiotherapy decreased the time until medical clearance in individuals with prolonged post-concussion symptoms	<b>Control:</b> rest followed by gradual exertion  <b>Experimental:</b> combined cervical and vestibular physiotherapy exercises	Demographic variables, history of concussion, history of dizziness, headache, neck pain and unsteadiness, number of years playing sport and other sports played  NPRS, ABC, DHI, SCAT2, DVA, HTT, modified MST, FGA, CFE, and JPE	Participants who received a combination of cervical and vestibular physiotherapy were more likely to achieve medical clearance before 8 weeks when compared with rest in individuals with persistent symptoms following SRC.

Alsalaheen et al. <sup>15</sup>	Retrospective cohort study	84 of 114 patients across the lifespan had returned to a follow up visit at a tertiary balance center for VRT following a sport-related concussion	To examine the severity of dizziness symptoms and gait and balance dysfunction reported by people who were referred for vestibular rehabilitation after concussion	A tailored VRT program in relation to each patient's impairments and functional limitations in dizziness, ocular motor function, and gait and balance function. Gaze stabilization exercises, standing balance, walking with balance, and canalith repositioning maneuvers were of the most prescribed exercises.	At first visit and weekly and monthly visits.	Patients with persistent dizziness and gait and balance dysfunction following a concussion improved after an individualized VRT program.
			To investigate the effect of vestibular rehabilitation on reducing dizziness and gait and balance dysfunction, and whether the amount of recovery during vestibular rehabilitation was different between adults and children		Self-report measures:	

Alsalaheen et al. <sup>16</sup>	Retrospective case series	60 patients (40 female and 20 males) with a mean age of 15 who were referred to a tertiary balance center for VRT	To examine the relationship between self-reported symptoms, cognitive performance, and balance performance in adolescents with protracted recovery referred to vestibular physical therapy after concussion	A tailored VRT program in relation to each patient's impairments and functional limitations in dizziness, ocular motor function, and gait and balance function. Gaze stabilization exercises in sitting and standing positions, standing balance, and walking with balance challenge were prescribed most often. The relationship between symptoms, cognitive measures, and	Verbal rating scale from 0-100, ABC, DHI  Balance measures:  DGI, FGA, gait speed, TUG, FTSTS, SOT of the CDP	At first visit as well as weekly and monthly visits	39 (65%) participants	In all cases, there was a significant association between poor cognitive performance and poor self-reported ABC scores and balance performance scores.
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Kleffelgaard et al. <sup>14</sup>	Single-Blind Randomized Controlled Trial	65 patients aged 16-60 years with mild-to- moderate traumatic brain injury	To investigate the effects of group-based vestibular rehabilitation in patients with traumatic brain injury	<b>Control:</b> Group-based vestibular rehabilitation twice weekly for 8 weeks	At first visit as well as two post- intervention follow-ups.	balance scores were evaluated.	Verbal rating scale from 0- 100, ABC, DHI	No significant relationship was found between processing speed to any of the measures collected during VRT.
						Balance measures:	FGA, DGI, gait speed, TUG, FTSTS, SOT of the CDP	
						Cognitive measures:	ImPACT, PCSS	
								Statistically significant between- group mean difference was found in self-report measures at first post- intervention follow-up; however, no

**Experimental:**

Group-based VRT, tailored VRT exercises, home exercise program, and exercise diary.

Self-report measures:

DHI, HLMAT, RPCSQ

Psychological measures:  
HADS

Balance Measures:  
BESS

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differences were found at second post-intervention follow-up. There are no differences between groups in any of the outcome measures at baseline.