Supplementary Table 1. Summary of the Individual Studies Included in the Scoping Review (*N*=17)

No.	1st author (year)	Country	Study aims	Participant characteristics	Study design (1), Data collection place (2), QoL measurement points (3)	Main findings
A1	Nestvold (2009)	Norway	To assess HRQoL and its determinants in a cohort who had sustained a TBI 22 years earlier.	***Demographic (N = 259)*** · Mean age (y) = 45 ± 15 · Male = 150 (57.9 %) ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = NA · TBI severity = PTA<30 minutes (52%) · Mean GCS on admission = NA · Dependency after discharge = NA	1) Prospective cohort (FU) study 2) Hospital (ward, outpatient clinic) 3) Total 1 time - 22 years after a TBI	PCS was 47.1 and MCS was 48.6 (SF-36: 0-100) PCS were associated with severe headaches for 3 months, age, heart disease and muscle/joint diseases. MCS and General Health Questionnaire-30 were associated with psychiatric disease and headache frequency ≥1 day per month 22 years after TBI.
A2	Tsaousides (2009)	USA	To examine the relative contribution of employment-related and general self-efficacy to perceptions of QoL for individuals with traumatic brain injury.	***Demographic (N = 425)*** · Mean age (y) = 41.2 ± 12.2 · Male = 237 (55.8%) ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = 9.87 ± 8.2 · TBI severity = LOC: 1 to 4 weeks (25.1%) · Mean GCS on admission = NA · Dependency after discharge = NA	1) Correlational study(retrospective) 2) Hospital (outpatient clinic) 3) Total 1 time - At least 3 months after injury (between 2000 – 2004)	Perceived Quality of Life (PQoL) were associated with age at injury, injury severity, Current income, employment-related self-efficacy and general self-efficacy after TBI.
A3	Van Veldhoven (2011)	USA	To investigate the predictive ability of preinjury stressful life events and post-traumatic stress symptoms to health-	***Demographic (N = 186)*** · Mean age (y) = 33.63 ± 12.34 · Male = 143 (76.9 %) · Mean Education = 10.60 ± 3.95 ***Trauma-related*** · Mechanism of injury = NA	1) Prospective follow-up study 2) Hospital (ward, outpatient clinic) 3) Total 2 times - Within 2 weeks of injury - 3 months after injury	SF-36 physical health component scores were associated with depression, stressful life events and Post-Traumatic Stress Disorder. SF-36 mental health component score was associated with stressful life event

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			related quality of life and emotional distress after mTBI.	· Mean time since injury (y) = NA · TBI severity = NA · Mean GCS on admission = NA · Dependency after discharge = NA	(between 2000 – 2004)	after TBI.
A4	Hu (2012)	China	To assess health-related quality-of-life (HRQoL) 2 years after traumatic brain injury (TBI) among a group of Chinese.	***Demographic (N = 358)*** · Mean age (y) = 32.7 ± 12.2 · Male = 257 (71.8 %) ***Trauma-related*** · Mechanism of injury = Traffic accidents (56%), fall (20.7%) · Mean time since injury (y) = NA · TBI severity = GCS 9–12 (58.9%) · Mean GCS on admission = 3-8 (41.1%) · Dependency after discharge = NA	1) longitudinal cohort study 2) Hospital (ward, outpatient clinic) 3) Total 4 times - During the hospital stay - 6 months after discharge - 1 year after discharge - 2 years after discharge (between 2005 – 2008)	All eight domains of the HRQoL had the lowest scores at discharge (38.9~58.8) and showed continued improvement 1 year and 2 years after discharge (49.9~71.9). PCS was associated with age (older than 30), MCS were associated with gender (Female than the males). PCS and MCS were associated with TBI severity (moderate).
A5	Kumar (2014)	USA	To examine the effect of preinjury depressive symptoms on outcomes 3 months after complicated and uncomplicated cases of mild traumatic brain injury.	***Demographic (N = 177)*** · Mean age (y) = 33.42 ± 12.1 · Male = 139 (78.5 %) ***Trauma-related*** · Mechanism of injury = motor vehicle accident (47%) · Mean time since injury (y) = NA · TBI severity = Complicated on CT scan (49%) · Mean GCS on admission = NA · Dependency after discharge = NA	1) Retrospective self-report & prospectively 2) Hospital (ward, ED, outpatient clinic) 3) Total 2 times - within the first 2 weeks after injury - 3 months after injury, (between 2000 – 2004)	PCS was 46.27-and MCS was 51 (SF-36: 0-100). PCS were associated with Language and Litigation status after TBI. MCS were associated with Litigation status and Moderate-severe depressive symptoms after TBI.
A6	Prieto-Palomino	Spain	To investigate the relationship between	***Demographic (N = 325)*** · Mean age (y) = 35.87 ± 17.44	1) Prospective cohort study 2) Hospital (ICU, outpatient	The PAECC score after 1 year was 9.43 points, which translates into a high

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	(2016)		computed tomography (CT) scan on admission, according to Marshall's tomographic classification, and quality-of-life (QoL) after 1 year in patients admitted to the Intensive Care Unit (ICU) with traumatic brain injury (TBI).	· Male = 281 (86.5 %) · Mean ICU stay = 12.70 ± 12.79 ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = NA · TBI severity = GOS: Severe disability (0.8%) · Mean GCS on admission = 8.32 ± 3.64 · Dependency after discharge = NA	clinic) 3) Total 1 time - 1 year after injury (between 2004–2008)	deterioration in QoL (0 points is the best score-29 the worst level of QoL). PAECC scores were associated with Glasgow Coma Scale (GCS), age, Glasgow Outcome Scale (GOS), length of ICU stays, spinal injury and CT Marshall classification after 1-year TBI.
A7	Petchprapai (2017)	Thailand	To (a) explore QOL after experiencing MTBI, (b) determine the extent of social support, and (c) identify factors that are associated with QOL in post-MTBI patients.	***Demographic (N = 135)*** · Mean age (y) = 37.73 ± 15.22 · Male = 113 (83.7 %) ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = 8.36 ± 2.15 · TBI severity = LOC(Mean): 1.53 minutes · Mean GCS on admission = At 30 minutes: 14.04 · Dependency after discharge = Ability to return to work or school (95.6%)	1) Cross-sectional descriptive study 2) Hospital (outpatient clinic) by telephone survey technique 3) Total 1 time - during the past 3- to 12-month period	The average Quality of Life Index (QLI) score of total QOL was 24(18-29.74). Quality of Life Index was associated with social support, return to work/school and length of hospital stay after TBI.
A8	Gorgoraptis (2019)	UK	To investigate the relationship between cognitive impairment and health-related quality of life (HRQoL) after TBI.	***Demographic (N = 240)*** · Mean age (y) = 44 (22-91) · Male = 174 (72.5 %) ***Trauma-related*** · Mechanism of injury = fall (32.9%), road traffic accident (30.8%) · Mean time since injury (y) =	1) Prospective study 2) Hospital (outpatient clinic) 3) Total 1 time - first outpatient appointment	TBI patients had poorer health-related quality of life on every domain measured by SF-36 following TBI. SF-36(PCS and MCS) were associated with Cognitive impairment, depression, sleep disturbance and daytime sleepiness after TBI.

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				4.37 months · TBI severity = moderate-severe (71.7%) · Mean GCS on admission = NA · Dependency after discharge = NA		
A9	Shepherd (2020)	New Zealand	To investigate the current study is to determine whether light and noise sensitivity ratings 12 months post TBI can explain changes in HRQOL beyond that explained by typical covariates such as gender and age.	***Demographic (N = 293)*** · Mean age (y) = males 39.47 ± 1.33, and females 36.26 ± 1.63 · Male = 170 (58 %) ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = NA · TBI severity = mild-high risk (69.3%) · Mean GCS on admission = NA · Dependency after discharge = NA	1) A cross-sectional from a longitudinal study 2) Hospital (outpatient clinic) 3) Total 1 time - 12 months post injury	PCS was 43.15 and MCS was 41.02 with Light and noise sensitivity. SF-36(PCS and MCS) were associated with Light and noise sensitivity after mild TBI.
A10	Shirvani (2020)	Iran	To investigate the role of mental fatigue, stress, depression, and anxiety along with demographic information in predicting the quality of life of patients with MTBI.	***Demographic (N = 322)*** · Mean age (y) = 38.8 ± 10.8 · Male = 180 (55.9 %) · Married = 68.4% ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = NA · TBI severity = NA · Mean GCS on admission = NA · Dependency after discharge = NA	1) Descriptive correlational study 2) Hospital (ED, Ward) 3) Total 1 time - 10 days after they arrived at the hospital	WHOQOL-BREF was 75.48 World Health Organization Quality of Life Brief (WHOQOL-BREF) were associated with mental fatigue, depression, anxiety, and gender after mild TBI.
A11	Aryal (2021)	Nepal	To identify the level impact on HRQOL and to examine the associated factors of HRQOL among patients with MTBI.	***Demographic (N = 114)*** · Mean age (y) = 33.89 ± 11.50 · Male = 88 (77.2 %) ***Trauma-related*** · Mechanism of injury =	1) Descriptive correlational predictive study 2) Hospital (ward, outpatient clinic) 3) Total 1 time	WHOQOL-BREF was 74.18 World Health Organization Quality of Life Brief (WHOQOL-BREF) were associated with Economic status, Post-concussion symptoms severity and social

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				Motor vehicle accident (59%) · Mean time since injury (y) = NA · TBI severity = Post-concussion symptoms severity: Severe (9.6%) · Mean GCS on admission = 13 (9.6%) · Dependency after discharge (d)= return to work/school 3.47 ± 1.71	- within 2–4 weeks of experiencing MTBI (from February to April 2018)	support after mild TBI in Nepal.
A12	Tunthanathi (2021)	Thailand	To assess the HRQoL in patients following TBI using the European quality of life measure-5 domain-5 level (EQ-5D-5L) questionnaire and develop models for predicting the EQ-5D-5L index score in patients with TBI.	***Demographic (N = 193)*** · Mean age (y) = 39.2 ± 16.5 · Male = 120 (62.2 %) ***Trauma-related*** · Mechanism of injury = road traffic accidents (67.9%) · Mean time since injury (y) = NA · TBI severity = GOS: Good recovery (96.4%) · Mean GCS on admission = 14.46 · Dependency after discharge = NA	1) Cross-sectional study 2) Hospital(ward) 3) Total 1 time - Before the participants were discharged from hospital, (Between 2018 – 2020)	EQ-5D-5L index scores were 0.91558 (SD=1.09639) and mean VAS score was 94.08 EQ-5D-5L (European quality of life measure-5 domain-5 level) index VAS (Visual Analogue Scale) scores were associated with GOS (Glasgow Outcome Scale), pupillary light reflex after TBI.
A13	Chung (2022)	Taiwan	To investigate the frequency and risk factors of PCSs and investigate their effects on quality of life over time after mild TBI in older adults.	***Demographic (N = 101)*** · Mean age (y) = 76 ± 7.99 · Male = 43 (42.6 %) ***Trauma-related*** · Mechanism of injury = falling (80.2%), Traffic accident (20%) · Mean time since injury (y) = NA · TBI severity = LOC (mean): 40, Total score of RPQ (mean): 5.95	1) Prospective longitudinal study 2) Hospital (ED, outpatient clinic) 3) Total 3 times - The seventh day - At the first month - At the sixth month after the head injury	QOLIBRI was 71.61 QOLIBRI (Quality of Life after Traumatic Brain Injury) were associated with post-concussion symptoms severity, Comorbidities, Time (postinjury) after TBI

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				· Mean GCS on admission = 15 · Dependency after discharge = NA		
A14	Ditchman (2022)	USA	To examine the unique impact of psychosocial variables and employment status (working vs. not working) on self-reported QOL among adults with TBI.	***Demographic (N = 116)*** · Mean age (y) = 46 ± 11.0 · Male = 44 (37.9 %) ***Trauma-related*** · Mechanism of injury = Motor vehicle accident (68.1 %) · Mean time since injury (y) = 14.2±12.0 · TBI severity = Severe (45.7 %) · Mean GCS on admission = NA · Dependency after discharge = NA	1) Cross-sectional study 2) Anonymous online survey 3) Total 1 time - Diagnosed with a brain injury no less than six months previously	Global QOL question was 3.36 Global QOL were associated with work status, informal and formal support network ties, problem-solving confidence, sense of community, and emotional support after TBI. Work status was the second strongest predictor of QOL after emotional social support.
A15	Popov (2022)	Canada	To assess demographic, clinical, and injury characteristics associated with health-related quality of life (HRQOL) in adults with persistent post-concussion symptoms (PPCS).	***Demographic (N = 125)*** · Mean age (y) = 39.74 ± 13.0 · Male = 44 (35.2 %) ***Trauma-related*** · Mechanism of injury = Motor vehicle collision (44.5%) · Mean time since injury (y) = 14.8 months. · TBI severity = LOC 31.2% · Mean GCS on admission = NA · Dependency after discharge = NA	1) Retrospective cohort study 2) Hospital (outpatient study) 3) Total 1 time - 3 months–5 years since the concussion (between 2018 – 2020)	QOLIBRI was 41.83 QOLIBRI (Quality of Life after Traumatic Brain Injury) were associated with depressive symptoms, fatigue, and anxiety after TBI. The depression was the strongest predictor, accounting for 42.0% of the variance in QOLIBRI scores.
A16	Eagle (2023)	USA	To evaluate the association of symptom factors at the two-week timepoint with function and quality of life measures at 6- and 12-	***Demographic (N = 1593)*** · Mean age (y) = 40.6±17.3 · Male = 66.2(%) ***Trauma-related*** · Mechanism of injury = NA · Mean time since injury (y) = NA	1) longitudinal cohort study 2) Hospital (ED, outpatient study) 3) Total 2 times - 6 months - 12 months post-injury. (2013 ~ 2019)	QOLIBRI-OS at 6 months was 66.25±24.76 and 12 months 67.58 ± 24.97. PCS at 6 months was 47.40 ± 10.26 and at 12 months 48.08 ± 10.09. MCS at 6 months was 48.46 ± 11.00 and 12 months 48.79 ± 11.01 (SF-12: Mean 50).

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			months post-injury.	· TBI severity = NA · Mean GCS on admission = 15 (77%) · Dependency after discharge = NA		QOLIBRI were associated with Cognitive, emotional, other symptoms (sleep disturbance, fatigue, noise sensitivity, and restlessness) after TBI. Other and cognitive associated with lower SF-12 Physical scores. Emotional and cognitive associated with lower SF-12 Mental scores.
A17	Mulyadi (2023)	Indonesia	To compare changes in postconcussion symptoms, posttraumatic stress, and illness representations and identify predictors of health-related quality of life before and 1 month after hospital discharge for mild traumatic brain injury.	***Demographic (N =136)*** · Mean age (y) = 36.6 ±15.9 · Male = 92 (67.6 %) ***Trauma-related*** · Mechanism of injury = Motorcycle crash (89.6%) · Mean time since injury (y) = NA · TBI severity = NA · Mean GCS on admission = 14.1 ±7 · Dependency after discharge = NA	1) prospective correlational study 2) Hospital (ward, online survey study) 3) Total 2 times - at discharge - 1 month later (between June 2020 and July 2021)	QOLIBRI-OS at Hospital Discharge was 47.7±15.4 and 1 Month After Discharge 54.9±11.8. QOLIBRI-OS were associated with postconcussion symptoms, more posttraumatic stress symptoms, more identity symptoms, worsened personal control, worsened treatment control, and negative emotional representations.

ED: Emergency departments; GOS: Glasgow Outcome Scale; HRQoL: Health-related quality of life; LOC: Loss of consciousness; MCS: Mental component summary; mTBI: mild traumatic brain injury; NA: Not applicable; PCS: Physical component summary; QoL: Quality of life; RPQ: Rivermead post-concussion symptoms questionnaire; SF-36: Short form 36 health survey; TBI: Traumatic brain injury