

Appendix A: Included studies

Table S1: Studies that assessed pain unidimensionally (only measuring pain intensity)

<b>Author and year</b>	<b>Study type</b>	<b>Pain assessment tool(s)</b>
Abbasi et al., 2021 [1]	Experimental: Non-Pharmacological	VAS
Abd-El-Maeboud et al., 2014 [2]	Experimental: Pharmacological	VAS
Abdalla et al., 2015 [3]	Experimental: Pharmacological	VAS
Abdolahian et al., 2014 [4]	Experimental: Non-Pharmacological	VAS
Abdollahi et al., 2014 [5]	Experimental: Pharmacological	VAS
Abdul-Sattar Khudhur Ali et al., 2018 [6]	Experimental: Non-Pharmacological	Wong-Baker FACES® scale
Abedi et al., 2017 [7]	Experimental: Non-Pharmacological	VAS
Akadri et al., 2018 [8]	Observational	VAS
Akbarzadeh et al., 2014 [9]	Experimental: Non-Pharmacological	VAS
Akin et al., 2020 [10]	Experimental: Non-Pharmacological	VAS
Akin et al., 2021 [11]	Experimental: Non-Pharmacological	VAS
Akköz Çevik et al., 2020 [13]	Experimental: Non-Pharmacological	VAS
Akköz Çevik et al., 2021 [12]	Experimental: Non-Pharmacological	VAS
Aksoy et al., 2016 [14]	Observational	VAS
Aktan et al., 2021 [15]	Experimental: Non-Pharmacological	VAS
Alimoradi et al., 2020 [16]	Experimental: Non-Pharmacological	VAS
Amanak, 2020 [18]	Experimental: Non-Pharmacological	VAS
Amiri et al., 2019 [19]	Experimental: Non-Pharmacological	VAS
Anabah et al., 2015 [20]	Observational	NRS
Anter et al., 2022 [23]	Experimental: Pharmacological	VAS
Antipin et al., 2014 [24]	Experimental: Pharmacological	VAS
Anwari et al., 2015 [25]	Observational	NRS
Arslantas et al., 2012 [27]	Experimental: Pharmacological	VAS
Asadi et al., 2015 [28]	Experimental: Non-Pharmacological	VAS
Ashtarkan et al., 2021 [29]	Experimental: Non-Pharmacological	VAS

Aslan et al., 2020 [30]	Experimental: Pharmacological	VAS
Attar et al., 2016 [31]	Experimental: Pharmacological	NRS
Azizi et al., 2020 [32]	Experimental: Non- Pharmacological	VAS
Babaoglu et al., 2020 [33]	Observational	VAS
Báez-Suárez et al., 2018 [34]	Experimental: Non- Pharmacological	VAS
Báez-Suárez et al., 2021 [35]	Experimental: Non- Pharmacological	VAS
Bal et al., 2020 [36]	Experimental: Non- Pharmacological	Categorical
Barbieri et al., 2013 [37]	Experimental: Non- Pharmacological	VAS
Bauchat et al., 2012 [38]	Observational	VAS
Bergh et al., 2011 [40]	Experimental: Non- Pharmacological	VAS
Bergstrom et al., 2010 [41]	Observational	Likert scale
Bolanthakodi et al., 2018 [42]	Experimental: Non- Pharmacological	NRS
Boogmans et al., 2014 [43]	Experimental: Pharmacological	VAS
Bourges et al., 2021 [44]	Experimental: Pharmacological	VRS
Brown et al., 2013 [45]	Observational	VAS
Bucstain et al., 2017 [46]	Observational	VAS
Buglione et al., 2020 [47]	Experimental: Non- Pharmacological	VAS
Bülez et al., 2020 [48]	Observational	VAS
Buran et al., 2022 [49]	Experimental: Non- Pharmacological	VAS
Burkle et al., 2017 [50]	Observational	NRS
Cankaya et al., 2021 [52]	Experimental: Non- Pharmacological	VAS
Capogna et al., 2011 [53]	Experimental: Pharmacological	VAS
Carvalho et al., 2013 [55]	Observational	VAS
Carvalho et al., 2014 [56]	Observational	NRS
Catala et al., 2021 [57]	Observational	NRS
Cavalcanti et al., 2019 [58]	Experimental: Non- Pharmacological	VAS
Cetin et al., 2015 [59]	Observational	Birth Satisfaction Scale
Chalermkitpanit et al., 2017 [60]	Observational	NRS
Chan et al., 2019 [61]	Observational	Dichotomous scale
Chang et al., 2011 [62]	Experimental: Non- Pharmacological	VAS
Chantrasiri et al., 2021 [63]	Experimental: Pharmacological	VAS
Chen et al., 2020 [64]	Experimental: Non- Pharmacological	VAS

Chen et al., 2021 [65]	Observational	VAS
Cheng et al., 2019 [66]	Experimental: Pharmacological	VAS
Cherian et al., 2016 [67]	Experimental: Pharmacological	NRS
Choudhary et al., 2020 [68]	Experimental: Pharmacological	VAS
Costa Martins et al., 2014b [70]	Observational	VAS
Costa-Martins et al., 2014a [72]	Observational	VAS
Costa-Martins et al., 2014c [71]	Observational	VAS
Costa-Martins et al., 2015 [69]	Experimental: Pharmacological	VAS
Craig et al., 2015 [73]	Experimental: Pharmacological	VAS
Cui et al., 2011 [74]	Experimental: Non- Pharmacological	VAS
Czech et al., 2018 [78]	Experimental: Pharmacological and Non- Pharmacological	VAS
Dabiri et al., 2014 [79]	Experimental: Non- Pharmacological	VAS
Daniel et al., 2021 [80]	Observational	Wong-Baker FACES® scale
Dehcheshmeh et al., 2015 [81]	Experimental: Non- Pharmacological	VAS
Deng et al., 2020 [83]	Observational	NRS
Deng et al., 2021a [82]	Experimental: Pharmacological	VAS
Deng et al., 2021b [84]	Observational	NRS
Desmawati et al., 2019 [85]	Experimental: Non- Pharmacological	VAS
Dixon et al., 2019 [86]	Experimental: Non- Pharmacological	VAS
Dolatian et al., 2010 [87]	Experimental: Non- Pharmacological	VAS
Dong et al., 2015 [88]	Experimental: Non- Pharmacological	VAS
du Plessis et al., 2010 [89]	Observational	VPS
Duncan et al., 2017 [90]	Experimental: Non- Pharmacological	VAS
Easther et al., 2021 [91]	Observational	NRS
Ebrahimian et al., 2022 [92]	Experimental: Non- Pharmacological	VAS
Edipoglu et al., 2021 [93]	Observational	VAS
El Hamid et al., 2013 [95]	Experimental: Non- Pharmacological	VAS
Elbohoty et al., 2012 [96]	Experimental: Pharmacological	VAS
El-Kerdawy et al., 2010 [94]	Experimental: Pharmacological	VAS

Erenoğlu et al., 2019 [97]	Experimental: Non-Pharmacological	VAS
Fardiazar et al., 2013 [98]	Experimental: Pharmacological	VAS
Feng et al., 2013 [99]	Experimental: Pharmacological	VAS
Ferrer et al., 2017 [100]	Experimental: Pharmacological	VAS
Fidkowski et al., 2019 [101]	Experimental: Pharmacological	NRS
Fleet et al., 2014 [104]	Observational	VAS
Fleet et al., 2015 [103]	Experimental: Pharmacological	VAS
Floris et al., 2017 [106]	Observational	VAS
Foji et al., 2018 [107]	Experimental: Pharmacological	VAS
Fouly et al., 2018 [108]	Experimental: Non-Pharmacological	VAS
Frauenfelder et al., 2015 [109]	Observational	VAS
Gallo et al., 2018 [110]	Experimental: Non-Pharmacological	VAS
Gambling et al., 2013 [111]	Experimental: Pharmacological	VRS
Ganapathy, 2012 [112]	Experimental: Non-Pharmacological	VAS
Ganji et al., 2013 [113]	Experimental: Non-Pharmacological	VAS
Garlock et al., 2017 [114]	Experimental: Non-Pharmacological	NRS
Garthus-Niegel et al., 2014 [115]	Observational	NRS
Genc Moralar et al., 2013 [117]	Experimental: Pharmacological	VAS
Ghandali et al., 2021 [118]	Experimental: Non-Pharmacological	VAS
Gokyildiz Surucu et al., 2018 [119]	Experimental: Non-Pharmacological	VAS
Gönenç et al., 2020a [120]	Experimental: Non-Pharmacological	VAS
Gönenç et al., 2020b [121]	Experimental: Non-Pharmacological	VAS
Grymel-Kulesza et al., 2021 [122]	Experimental: Non-Pharmacological	NRS
Gündüz et al., 2017 [123]	Experimental: Pharmacological	VAS
Gür et al., 2020 [124]	Experimental: Non-Pharmacological	VAS VRS
Gusti Kompiang et al., 2019 [125]	Experimental: Non-Pharmacological	NRS
Hajiamini et al., 2012 [127]	Experimental: Non-Pharmacological	VAS

Hajjighasemali et al., 2014 [128]	Experimental: Non-Pharmacological	VAS
Hamdamian et al., 2018 [129]	Experimental: Non-Pharmacological	NRS
Hamer et al., 2016 [130]	Observational	NRS
Hamidzadeh et al., 2012 [131]	Experimental: Non-Pharmacological	VAS
Hamlaci et al., 2017 [132]	Experimental: Non-Pharmacological	VAS
Hein et al., 2010 [133]	Experimental: Pharmacological	VAS
Helk Souza et al., 2017 [134]	Observational	Dichotomous scale
Henrique et al., 2018 [135]	Experimental: Non-Pharmacological	VAS
Hinojosa-Laborde et al., 2017 [136]	Observational	NRS
Horn et al., 2017 [138]	Observational	NRS
Hoyt et al., 2018 [139]	Observational	NRS
Iizuka et al., 2018 [140]	Observational	NRS NRS-20
Ilska et al., 2020 [141]	Observational	NRS
Imani et al., 2021 [142]	Experimental: Pharmacological	VAS
İsbir et al., 2018 [143]	Observational	VAS
Ismail et al., 2012 [144]	Experimental: Pharmacological	VAS
Ismail et al., 2015 [145]	Observational	VAS
Izquierdo et al., 2019 [146]	Observational	VPS
Jafari et al., 2017 [148]	Observational	VAS
Jahdi et al., 2017 [149]	Experimental: Non-Pharmacological	VAS
Jameei-Moghaddam et al., 2021 [150]	Experimental: Non-Pharmacological	VAS
Jamshidi Manesh et al., 2015 [151]	Experimental: Non-Pharmacological	VAS
John et al., 2017 [153]	Experimental: Non-Pharmacological	NRS
Jost et al., 2013 [154]	Experimental: Pharmacological	VAS
Jost et al., 2015 [155]	Observational	VAS
Junge et al., 2018 [157]	Observational	NRS
Junge et al., 2021 [156]	Observational	VAS
Kacar et al., 2021 [158]	Experimental: Non-Pharmacological	VAS
Kacperczyk-Bartnik et al., 2019 [159]	Observational	NRS
Kadirogullari et al., 2021 [160]	Experimental: Pharmacological	VAS
Kamalifard et al., 2012 [161]	Experimental: Non-Pharmacological	NRS
Kaplan et al., 2021 [162]	Experimental: Non-Pharmacological	VAS
Karaçam et al., 2011 [163]	Observational	NRS

Karakoyunlu et al., 2019 [164]	Observational	Categorical VAS
Karaman et al., 2021 [165]	Experimental: Non-Pharmacological	VPS
Kaur et al., 2020 [166]	Experimental: Non-Pharmacological	NRS
Kaviani et al., 2014a [167]	Experimental: Non-Pharmacological	VAS
Kaviani et al., 2014b [168]	Experimental: Non-Pharmacological	VAS
Khaneshi et al., 2020 [169]	Experimental: Pharmacological	VAS
Kinnunen et al., 2020 [170]	Observational	NRS
Kokki et al., 2012 [171]	Experimental: Pharmacological	NRS
Koyucu et al., 2018 [172]	Experimental: Non-Pharmacological	VAS
Koyucu et al., 2021 [173]	Observational	VAS
Krupa et al., 2017 [174]	Observational	NRS
Kuciel et al., 2021 [175]	Observational	NRS
Le Guen et al., 2012 [177]	Observational	VAS
Lee et al., 2013a [180]	Experimental: Non-Pharmacological	VAS
Lee et al., 2013b [181]	Experimental: Non-Pharmacological	VAS
Lee et al., 2013c [182]	Experimental: Non-Pharmacological	VAS
Lee et al., 2018 [178]	Observational	VAS
Lee Mi et al., 2011 [179]	Experimental: Non-Pharmacological	VAS
Leung et al., 2013 [183]	Observational	VAS
Li et al., 2020a [184]	Experimental: Pharmacological	VAS
Li et al., 2020b [186]	Experimental: Pharmacological	VAS
Li et al., 2021 [185]	Experimental: Pharmacological	VAS
Lim et al., 2018 [187]	Observational	NRS
Lin et al., 2014 [189]	Experimental: Pharmacological	NRS
Liu et al., 2010 [192]	Experimental: Non-Pharmacological	VAS
Liu et al., 2014 [193]	Experimental: Non-Pharmacological	VAS
Liu et al., 2015a [191]	Experimental: Non-Pharmacological	VAS
Liu et al., 2015b [194]	Experimental: Pharmacological	VAS
Logtenberg et al., 2017 [195]	Experimental: Non-Pharmacological	VAS

Ma et al., 2010a [196]	Experimental: Non-Pharmacological	VAS
Ma et al., 2010b [197]	Experimental: Non-Pharmacological	VAS
Ma et al., 2011 [198]	Experimental: Non-Pharmacological	VAS
Mafetoni et al., 2016 [199]	Experimental: Non-Pharmacological	VAS
Malik et al., 2019 [200]	Experimental: Pharmacological	NRS
Mallen-Perez et al., 2018 [201]	Observational	NRS
Manouchehrian et al., 2020 [202]	Experimental: Pharmacological	VAS
Mansouri et al., 2018 [203]	Experimental: Non-Pharmacological	VAS
Marijic et al., 2013 [204]	Experimental: Pharmacological	VAS
Mårtensson, 2010 [205]	Observational	VAS
Mathew et al., 2016 [206]	Experimental: Non-Pharmacological	NRS
Matsota et al., 2018 [207]	Experimental: Pharmacological	NRS
Mazda et al., 2022 [208]	Experimental: Pharmacological	NRS
Mete et al., 2020 [210]	Observational	VAS
Meyer et al., 2010 [211]	Observational	NRS
Mhyre et al., 2013 [212]	Experimental: Pharmacological	VAS
Miao et al., 2020 [213]	Experimental: Non-Pharmacological	VAS
Miquelutti et al., 2019 [214]	Experimental: Non-Pharmacological	VAS
Mirzaee et al., 2021 [215]	Experimental: Non-Pharmacological	VAS
Miyakoshi et al., 2013 [216]	Observational	NRS
Mobaraki et al., 2016 [217]	Experimental: Pharmacological	VAS
Mohan et al., 2021 [219]	Experimental: Non-Pharmacological	VAS
Mohyadin et al., 2020 [220]	Experimental: Non-Pharmacological	VAS
Mohyadin et al., 2021 [221]	Experimental: Non-Pharmacological	VAS
Mollamahmutoğlu et al., 2012 [222]	Experimental: Pharmacological and Non-Pharmacological	VAS
Moore et al., 2017 [223]	Experimental: Pharmacological	VAS
Moraloglu et al., 2017 [224]	Experimental: Non-Pharmacological	VAS

Mortazavi et al., 2012 [225]	Experimental: Non-Pharmacological	PPI
Mucuk et al., 2013 [227]	Experimental: Non-Pharmacological	VAS
Mucuk et al., 2014 [226]	Experimental: Non-Pharmacological	VAS
Nevo et al., 2019 [228]	Observational	NRS
Ngan Kee et al., 2013 [230]	Experimental: Pharmacological	VAS
Ngan Kee et al., 2014 [229]	Experimental: Pharmacological	VAS
Njiru et al., 2014 [232]	Observational	Categorical
Njogu et al., 2021 [233]	Experimental: Non-Pharmacological	VAS
Nogueira et al., 2010 [234]	Experimental: Pharmacological	VAS
Nunes et al., 2019 [235]	Experimental: Pharmacological	VAS
Ojo et al., 2020 [237]	Experimental: Pharmacological	VPS
Orbach-Zinger et al., 2012 [238]	Experimental: Non-Pharmacological	VPS
O'Reilly-Shah et al., 2018 [236]	Observational	VAS
Oyetunde et al., 2013 [239]	Observational	Categorical
Ozgoli et al., 2017 [240]	Experimental: Non-Pharmacological	NRS
Panya et al., 2019 [241]	Experimental: Non-Pharmacological	VAS
Parsa et al., 2017 [242]	Experimental: Pharmacological	VAS
Pasha et al., 2012 [243]	Experimental: Pharmacological	Categorical
Pawale et al., 2020 [244]	Experimental: Non-Pharmacological	NRS
Peng et al., 2010 [245]	Experimental: Non-Pharmacological	VAS
Pettersson et al., 2016 [246]	Observational	VAS
Pita et al., 2012 [247]	Observational	VAS
Pratici et al., 2017 [248]	Observational	VAS NRS
Rahimi-Kian et al., 2018 [250]	Experimental: Non-Pharmacological	NRS
Rahmati et al., 2021 [251]	Experimental: Pharmacological	VAS
Regis et al., 2017 [253]	Experimental: Non-Pharmacological	VAS
Rezaie et al., 2019 [254]	Experimental: Pharmacological	VAS
Rhee et al., 2015 [255]	Observational	NRS
Rodríguez-Campoó et al., 2019 [256]	Experimental: Pharmacological	VAS



Rolinska et al., 2015 [257]	Experimental: Non-Pharmacological	VAS
Roque Mafetoni et al., 2016 [259]	Experimental: Non-Pharmacological	VAS
Roque Mafetoni et al., 2019 [258]	Experimental: Non-Pharmacological	VAS
Rosseland et al., 2020 [261]	Observational	NRS
Salarian et al., 2015 [262]	Experimental: Pharmacological	VAS
Salimi et al., 2014 [263]	Experimental: Pharmacological	NRS
Sanchez-Migallon et al., 2017 [264]	Observational	VPS
Santana et al., 2016 [265]	Experimental: Non-Pharmacological	VAS
Schmidt et al., 2015 [267]	Observational	VAS VPS
Sebastian, 2014 [268]	Experimental: Non-Pharmacological	NRS
Sehhatie-Shafaie et al., 2013 [269]	Experimental: Non-Pharmacological	VAS
Selin et al., 2021 [270]	Experimental: Pharmacological	VAS
Seval et al., 2016 [271]	Experimental: Non-Pharmacological	VAS
Shaaban et al., 2017 [272]	Observational	VAS
Shafer et al., 2010 [273]	Observational	VAS
Shafiqeh et al., 2012 [274]	Experimental: Non-Pharmacological	VAS
Shahoei et al., 2017 [275]	Experimental: Non-Pharmacological	VAS
Shahshahan et al., 2014 [276]	Experimental: Non-Pharmacological	NRS
Sharma, 2018 [277]	Experimental: Non-Pharmacological	NRS
Shetty et al., 2014 [278]	Experimental: Pharmacological	VAS
Shirvani et al., 2014 [279]	Experimental: Non-Pharmacological	VAS
Shivanagappa et al., 2021 [280]	Experimental: Pharmacological	VAS
Shoorab et al., 2013 [281]	Experimental: Pharmacological	VAS
Sia et al., 2013 [282]	Experimental: Pharmacological	VAS
Simavli et al., 2014 [285]	Experimental: Non-Pharmacological	VAS
Singer et al., 2016 [286]	Observational	NRS
Song et al., 2021 [287]	Experimental: Pharmacological	VAS
Stark, 2017 [288]	Experimental: Non-Pharmacological	VAS

Stocki et al., 2014 [289]	Experimental: Pharmacological	NRS
Stramrood et al., 2011 [290]	Observational	VAS
Sun et al., 2019 [291]	Observational	VAS
Sun et al., 2021 [292]	Observational	NRS
Susanti et al., 2020 [293]	Experimental: Non- Pharmacological	Categorical
Taavoni et al., 2011 [295]	Experimental: Non- Pharmacological	VAS
Taavoni et al., 2013 [294]	Experimental: Non- Pharmacological	VAS
Taavoni et al., 2016 [296]	Experimental: Non- Pharmacological	VAS
Tanvisut et al., 2018 [299]	Experimental: Non- Pharmacological	NRS
ten Eikelder et al., 2017 [300]	Observational	VAS
Terkawi et al., 2014 [301]	Observational	NRS
Tian et al., 2013 [303]	Experimental: Pharmacological	VAS
Torkiyan et al., 2021 [304]	Experimental: Non- Pharmacological	NRS
Traverzim et al., 2021 [305]	Experimental: Non- Pharmacological	VAS
Tshibuyi et al., 2013 [306]	Experimental: Pharmacological	VAS
Tuncay et al., 2019 [307]	Experimental: Non- Pharmacological	VAS
Türkmen et al., 2020 [308]	Experimental: Non- Pharmacological	NRS
Türkmen et al., 2021 [309]	Experimental: Non- Pharmacological	VAS
Türkmen et al., 2021 [310]	Experimental: Non- Pharmacological	NRS
Tveit et al., 2013 [311]	Observational	VAS
Uçar et al., 2019 [312]	Experimental: Non- Pharmacological	NRS
Ulfsdottir et al., 2019 [313]	Observational	Childbirth Experience Questionnaire
Uludağ et al., 2021 [314]	Experimental: Non- Pharmacological	VAS
Vargens et al., 2016 [318]	Observational	NRS
Varposhti et al., 2013 [319]	Experimental: Pharmacological	VAS
Veringa et al., 2011 [320]	Observational	NRS
Vilchis Rentería et al., 2020 [321]	Observational	NRS
Vixner et al., 2012 [322]	Experimental: Non- Pharmacological	VAS
Vixner et al., 2014 [324]	Experimental: Non- Pharmacological	VAS
Vixner et al., 2017 [323]	Experimental: Non- Pharmacological	VAS

Volmanen et al., 2011 [325]	Experimental: Pharmacological	NRS
Wadhwa et al., 2020 [326]	Observational	VAS
Wahdan et al., 2019 [327]	Experimental: Pharmacological	VAS
Waisblat et al., 2010 [328]	Observational	NRS
Wang et al., 2010 [331]	Experimental: Pharmacological	VAS
Wang et al., 2020a [330]	Experimental: Non- Pharmacological	Categorical
Wang et al., 2020b [333]	Observational	VAS
Wang et al., 2021a [332]	Experimental: Pharmacological	VAS
Wang et al., 2021b [329]	Experimental: Pharmacological and Non- Pharmacological	VAS
Wee et al., 2014 [334]	Experimental: Pharmacological	VAS
Wei et al., 2021 [335]	Experimental: Non- Pharmacological	VAS
Wen et al., 2021 [336]	Experimental: Pharmacological	VAS
Werner et al., 2013 [337]	Experimental: Non- Pharmacological	Likert scale
Wickboldt et al., 2015 [338]	Observational	NRS
Wong et al., 2021 [340]	Experimental: Non- Pharmacological	VAS
Woo et al., 2015 [341]	Observational	NRS
Wp et al., 2018 [342]	Experimental: Pharmacological	VAS
Wu et al., 2017 [344]	Experimental: Pharmacological	VAS
Wu et al., 2019 [343]	Experimental: Pharmacological	VAS
Wu et al., 2022 [345]	Experimental: Pharmacological	VAS
Xian et al., 2015 [346]	Experimental: Pharmacological	NRS
Xiao et al., 2019 [347]	Experimental: Pharmacological	VAS
XiaoFeng et al., 2017 [348]	Experimental: Pharmacological	VAS
Yadav et al., 2018 [350]	Observational	NRS
Ya-Ling et al., 2017 [349]	Observational	VAS
Yang et al., 2017 [353]	Experimental: Pharmacological	VAS
Yang et al., 2020 [352]	Observational	NRS
Yazdkhasti et al., 2016 [354]	Experimental: Non- Pharmacological	VAS

Yesilcicek Calik et al., 2014 [355]	Experimental: Non-Pharmacological	VAS
Yue et al., 2013 [356]	Experimental: Pharmacological	VAS
Yuksel et al., 2017 [357]	Experimental: Non-Pharmacological	VAS
Zafar et al., 2016 [358]	Experimental: Non-Pharmacological	VAS
Zambaldi et al., 2011 [359]	Observational	NRS
Zhang et al., 2018 [360]	Experimental: Pharmacological	VAS
Zhong et al., 2020 [361]	Experimental: Pharmacological	VAS
Zhou et al., 2021 [362]	Experimental: Non-Pharmacological	VAS
Zutshi et al., 2016 [363]	Experimental: Pharmacological	VAS

VAS – Visual Analogue Scale. NRS – Numerical Rating Scale. Categorical – Categorical rating scales.  
VPS – Verbal Pain Scale.

Table S2: Studies that assessed pain multidimensionally

<b>Author and year</b>	<b>Study type</b>	<b>Pain assessment tool(s)</b>
Allameh et al., 2015 [17]	Experimental: Pharmacological and Non-Pharmacological	SF-2-MPQ
Angle et al., 2016 [22]	Observational	NRS (intensity) VRS (intensity) A-LPQ
Angle et al., 2017 [21]	Observational	NRS (intensity) VRS (intensity) A-LPQ
Arinze et al., 2018 [26]	Observational	Categorical (intensity) Likert scale (meaning of pain)
Bergh et al., 2012 [39]	Observational	VAS (intensity) ASAS
Can et al., 2015 [51]	Experimental: Non- Pharmacological	VAS (intensity) MPQ
Capogna et al., 2010 [54]	Observational	SF-MPQ
Cui et al., 2012 [75]	Observational	SF-MPQ
Curzik et al., 2011 [77]	Observational	NRS (intensity) SF-MPQ
Curzik et al., 2012 [76]	Observational	SF-MPQ VAS
Firouzbakht et al., 2013 [102]	Experimental: Non- Pharmacological	VAS (intensity) MPQ
Floris et al., 2015 [105]	Observational	VAS (intensity) MPQ
Gau et al., 2011 [116]	Experimental: Non- Pharmacological	SF-MPQ
Haines et al., 2012 [126]	Observational	Likert scales (intensity & positive/negative pain)
Hjelmstedt et al., 2010 [137]	Experimental: Non- Pharmacological	VAS (intensity) VAS (ability to cope)
Jacobsen et al., 2018 [147]	Observational	MPQ
Janssen et al., 2012 [152]	Experimental: Non- Pharmacological	MPQ (PPI only)
Lallar et al., 2015 [176]	Experimental: Pharmacological	MPQ (PPI only)
Lim et al., 2020 [188]	Observational	VAS (intensity) VAS (unpleasantness)
Lin et al., 2018 [190]	Experimental: Non- Pharmacological	SF-MPQ
Mestrovic et al., 2015 [209]	Observational	SF-MPQ (excluding PPI)
Moghimi-Hanjani et al., 2015 [218]	Experimental: Non- Pharmacological	MPQ (Pain Rating Index only)
Nilsen et al., 2011 [231]	Observational	ANS (intensity) VAS (bearability)
Quinn et al., 2015 [249]	Observational	Likert scales (intensity & distress)

Ravangard et al., 2017 [252]	Experimental: Non-Pharmacological	MPQ
Roque Mazoni et al., 2013 [260]	Observational	VAS (intensity) SF-MPQ
Sasitorn et al., 2013 [266]	Experimental: Non-Pharmacological	VAS (intensity) VAS (distress)
Silva Gallo et al., 2013 [283]	Experimental: Non-Pharmacological	VAS (intensity) SF-MPQ
Sim et al., 2021 [284]	Observational	NRS(intensity) SF-2-MPQ
Taghinejad et al., 2010 [297]	Experimental: Non-Pharmacological	VAS (intensity) VAS (distress)
Tan et al., 2021 [298]	Observational	SF-MPQ
Thies-Lagergren et al., 2021 [302]	Observational	Likert scales (intensity & positive/negative pain)
Valiani et al., 2010 [317]	Experimental: Non-Pharmacological	SF-MPQ
Valiani et al., 2016 [316]	Experimental: Non-Pharmacological	VAS (intensity) MPQ (PPI only)
Valiani et al., 2018 [315]	Experimental: Non-Pharmacological	VAS (intensity) SF-MPQ
Wilson et al., 2016 [339]	Observational	MPQ (PPI only)
Yadollahi et al., 2019 [351]	Observational	NRS (intensity) SF-MPQ PLPQ

MPQ – McGill Pain Questionnaire. SF – Short form. SF-2 – Short form version two. PLPQ – Perception of Labor Pain Questionnaire. NRS – Numerical Rating Scale. PPI - Present Pain Intensity. VAS – Visual Analogue Scale. ANS – Alphanumerical Scale. A-LPQ – Angle Labor Pain Questionnaire. VRS – Verbal Rating Scale.

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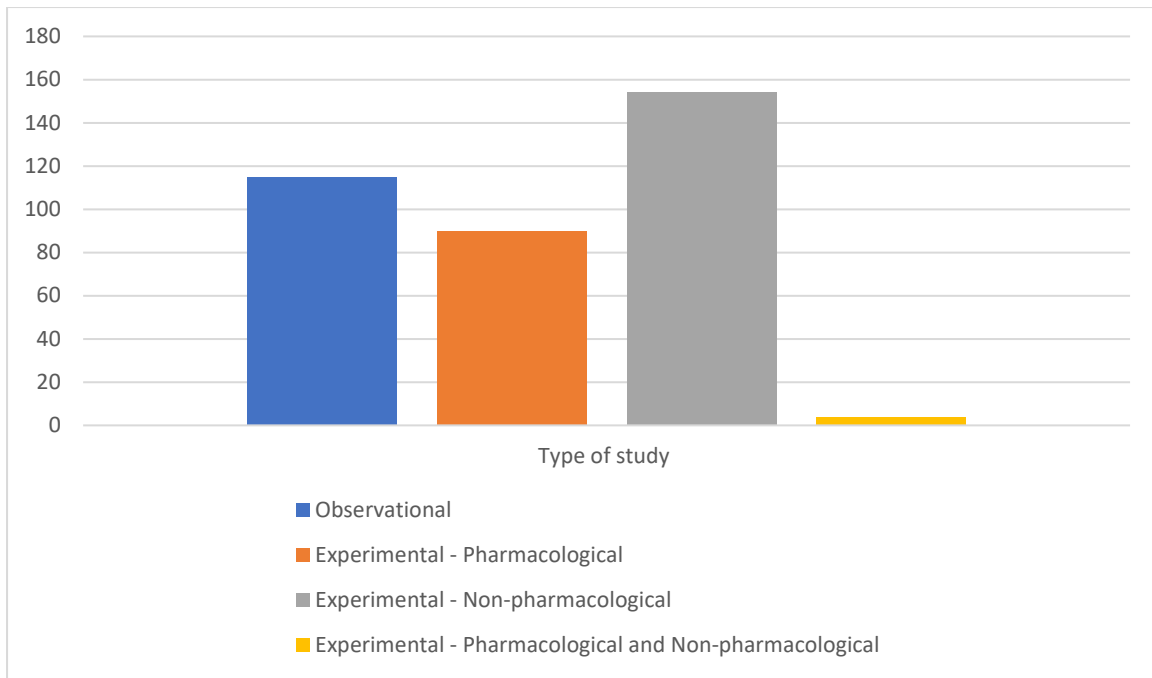
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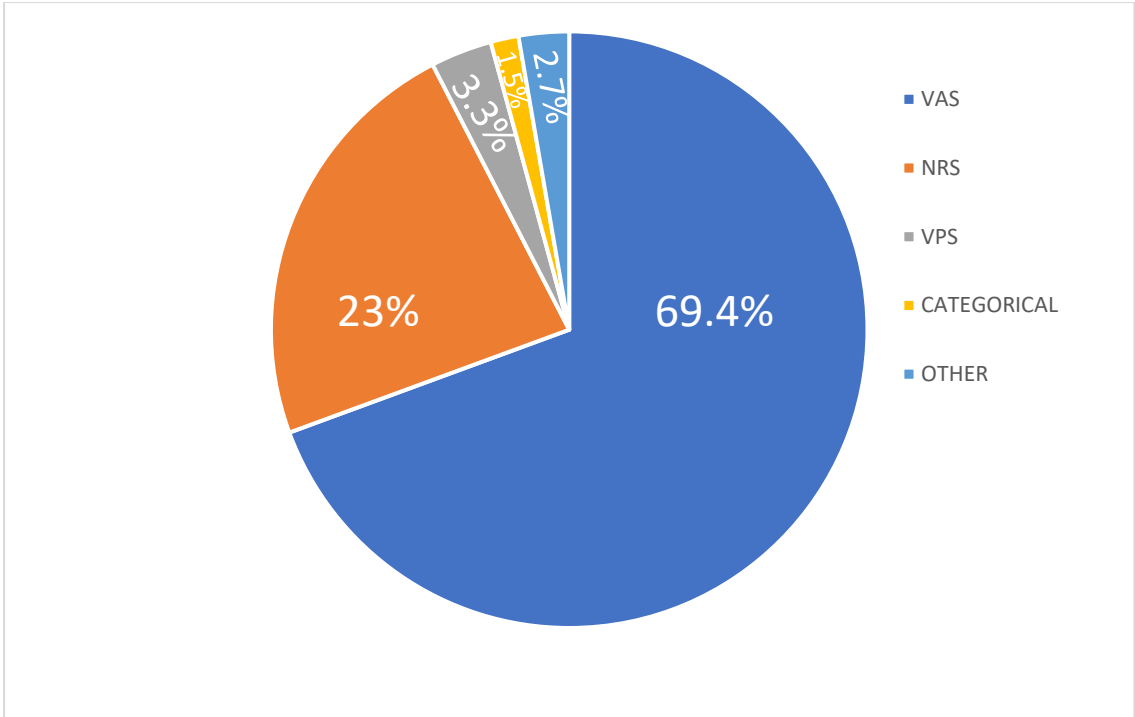


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NRS	0	1	2	3	4	5	6	7	8	9	10	Frequency	
Categorical descriptors	Nil	mild		moderate			severe					4	
	Nil	low		moderate			heavy		severe		1		
		mild	moderate			severe					1		
	Nil	mild		moderate			severe					1	
	Nil	mild			moderate			severe					1
		low			moderate			severe					1

Table 1: Subject headings and keywords used to explore three key concepts for database searches

<b>Concept 1: Labour</b>	<b>Concept 2: Pain</b>	<b>Concept 3: Measurement</b>
Labour	Labour Pain	Measurement
Obstetric	Acute pain	Scale
Childbirth		Rating
Parturition		Tool
Obstetric labour		Instrument
complications		Assess

Table 2: Unidimensional and multidimensional pain tools organised by study type

	Unidimensional	Multidimensional	Total
<b>Experimental – Pharmacological</b>	89	1	90
<b>Experimental – Non-pharmacological</b>	140	14	154
<b>Experimental – Combination</b>	3	1	4
<b>Observational/non-experimental</b>	94	21	115
	326 (89.8%)	37 (10.2%)	363

‘Combination’ refers to experimental studies that utilised a combination of pharmacological and non-pharmacological interventions. ‘Observational/non-experimental’ studies may or may not have included pharmacological and non-pharmacological strategies for pain management.



Table 3: Variations of terms used for upper anchor of the Visual Analogue Scale

<b>Anchor Terms</b>	<b>Examples</b>	<b>Frequency</b>
<b>Pain quality</b>	excruciating pain	1
	agonising pain	1
	dreadful	1
	intense/unpleasant	1
	worst possible, unbearable, excruciating pain	1
<b>Pain intensity</b>	most pain	4
	extreme pain	3
	maximum pain	3
	max pain possible	2
	strongest ever felt	1
	max bearable pain	1
	strongest pain imaginable	1
	intense pain	1
	highest intensity of pain	1
<b>Pain severity</b>	most severe pain	9
	most serious pain	2
	most severe pain possible	1
	most severe pain they had experienced	1
<b>Pain imagination</b>	as bad as one can imagine	1
	greatest pain imaginable	1
	much more than I can imagine	1

<b>Pain coping</b>	unbearable pain	7
	intolerable pain	4
	extreme and intolerable pain	2
	severe and intolerable	1
	most intense pain possible and unbearable	1
	can't stand the pain	1
	worst pain the participant believes she can endure	1
<b>'Worst' pain</b>	worst pain imaginable	39
	worst pain	12
	worst possible pain	6
	worst pain ever	4
	worst conceivable pain	1
	severe and worst possible pain	1
	as bad as it could be or worst imaginable pain	1
<b>Total</b>	<b>35 variations</b>	<b>119</b>

Table 4: McGill Pain Questionnaire usage among studies

	<b>MPQ</b>	<b>SF-MPQ</b>	<b>SF-MPQ-2</b>	<b>Other</b>	<b>Total</b>
<b>Entire form</b>	3	12	2	1	18 (72%)
<b>Section only</b>	2	1	0	4	7 (28%)
<b>Total</b>	5 (20%)	13 (52%)	2 (8%)	5 (20%)	25

MPQ – McGill Pain Questionnaire. SF – Short form. SF-2 – Short form version two.