The measurement of joint range of motion (ROM) in static and dynamic, passive and active, human movements is an essential skill in the musculoskeletal assessments commonly performed by physiotherapists, as well as some strength and conditioning coaches, to examine joint function, detect joint asymmetry and evaluate treatment efficacy as an objective outcome measure [1]. This state-of-the-art review will assist clinical practitioners in deciding the appropriateness and choice of smartphone apps for clinical ROM assessment. These potential issues highlighted for the use of the universal goniometer in assessing static joint ROM may be further exacerbated in inexperienced clinicians who have a relative inability to correctly locate anatomical landmarks; as well as the assessment of dynamic rather than static ROM [10, 11]. In psychometric terminology, reliability deals with the consistency in angle and displacement measures produced by smartphone apps, when used by multiple assessors (inter-rater), and when the same assessor performs multiple measurements (intra-rater) [13]. The purpose of this systematic review was to address some of the limitations of the previous review in this area so as to better assist the clinician identify which smartphone apps may show adequate inter-rater and intra-rater reliability as well as validity for the measurement of ROM at particular joints and actions in clinical practice. On the topic of synthesizing the psychometric properties of smartphone apps, a number of systematic reviews have been conducted [14, 15].