

Abstract

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In nursing education as well as in preterm care professional training, there is a lack of didactical-pedagogical material on physical examination. A literature review suggests that this theme be presented to students with the help of technology that permits the closest possible approximation of reality. Hence, it is important to elaborate strategies and instruments that gradually present the complexity and specificity of preterm infants. In the age of informatics, the use of computers in education offers countless possibilities. This study aims to develop and validate an educational software on physical examination of preterm infants. We used the problematizing pedagogical reference framework and Bernardo's software development methodology. The software was developed through advanced interactive computer technology and simulations. Hypertext resources were used to present a series of integrated media, such as pictures, figures, videos and sound fragments. The content was organized in four parts: 1. the presentation, which also included the justification and objective of the educational software, and a list of used abbreviations; 2. semiological techniques, containing theoretical and practical concepts of inspection, palpation, percussion and auscultation techniques used in clinical assessment; 3. semiology, discussing conceptual and historical aspects, the context of clinical assessment at the neonatal unit (preterm infant, evaluator, environment and family) and assessment types (at birth, transition and systematic assessment). Systematic clinical assessment was organized according to basic human needs (psychobiological – oxygenation, circulation, thermoregulation, feeding and hydration, elimination, tissue integrity, sleep and rest, sexuality and sensory perception; psychosocial – security, love and acceptance, gregarious and attention; and psychospiritual); 4. simulations, covering 143 multiple choice questions and the respective feedback on right or wrong answers, with a view to testing the knowledge acquired through the software, in a random presentation. Learning was considered adequate if the student answered correctly at least 70% of questions. The software also presents links to gallery, references and technical card. Content and face validation involved three informatics specialists, two audiovisual technicians and eleven nurses (faculty members and clinical nurses). More than 70% of the experts assessed a large majority of the assessed software items as good or very good, so that its face and contents were validated. Thus, we consider that the developed product is adequate for use in nursing teaching about physical examination of preterm infants, in the context of the problematizing pedagogical reference framework.

Key words: Neonatal nursing. Infant, newborn. Premature. Physical Examination. Software.