

Scoping Review on the Concept of Patient Motivation and Practical Tools to Assess it

Abstract

Background: In this scoping review, the concept of patients' motivation and the tools that have been designed to measure this concept in clinical settings are presented. **Materials and Methods:** Arksey and O'Malley's framework was used in conducting the current scoping review. Google Scholar, PubMed, Scopus, and Web of Science databases were searched for relevant English articles published between January 1995 and January 2020 using the keywords motivation and tool, and their synonyms. Out of 2820 articles, 34 articles were chosen and were entered into the final analysis. Definitions of patients' motivation were determined using Kyngäs *et al.*, content analysis method. **Results:** The findings showed that new tools had been developed in 38% of the studies and other studies had revised or translated existing questionnaires. Moreover, 62% of the tools were used to measure patient motivation in mental disorders. Most of the studies did not clearly define the concept of patient motivation in the clinical environment. The findings of content analysis outlined the 3 categories of motivation determinant factors, decisions, and behaviors that determine overall levels of motivations and its consequences. **Conclusions:** Motivation is a dynamic concept and is a result of internal and external motives that lead to decisions and behaviors. There are limited tools for measuring motivation in clinical settings. This addresses the need to design specific tools in various diseases, especially chronic diseases. By the concept defined in this study, it is possible to design a short tool with general application that can be used in all diseases.

Keywords: *Motivation, nurses, patients, review*

Introduction

Motives have a crucial role in developing individuals' psychical energy and guide people toward important activities, goals, and ultimately, successful performance.^[1] Motivations are important in one's ability to recover from illness or disabling events, and to maintain health-enhancing behaviors. The Quality Of Life (QOL) and the ability to adapt and solve health-related problems are influenced by the individuals' motivations.^[2] Patients' motivations provoke them to search for possible treatments and to follow these treatments in spite of their hardships and difficulties.^[3] Therefore, it plays an essential role in determining the outcome of treatments and bearing its complications.^[4] As long as the treatments are in accordance with the patient's motivation, the compliance will be satisfactory.^[3] While some patients may have internal motivation to improve their health, others may require support.^[2] Nurses can help patients in this regard, but, first, they should be able to determine

patients' motives. This is crucial, especially in patients with chronic conditions because these patients need to be active in their self-care for a long time.

Nurses can promote patients' overall wellness by using a set of enhancing motivation techniques that improve health behavior and the quality of self-care.^[5] Nurses can help patients overcome barriers that decrease internal motivations such as frustration and loss of hope. They can also provide support plans for external barriers. Using motivation enhancing methods successfully and evaluating their effectiveness requires suitable tools and scales for measuring patients' motivations. Accurate assessment of patient's motivation is an integral part of the nursing process.^[6] Motivation tools can help nurses to assess the level of patients' motivation in a clinical environment. Therefore, they need to measure the quantity and quality of patient's motivation as a variable.

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There are several tools with different definitions of motivation. The definition of the concept of motivation is different in these tools, for example, some studies have described motivation as a spiritual or religious phenomenon,^[7] and others have described it as a patient's desire and a longing to continue living.^[8] These differences can confuse nurses and reduce their confidence in using the tools. The objective of this study was to review the existing tools to assess the patient's motivation in the clinical environment and to determine the concept of motivation in these tools. This review might help nurses in selecting the right clinical tools and identifying knowledge gaps.

Materials and Methods

This scoping review is part of a PhD thesis entitled "Development and Psychometric Evaluation of Motivation for Healing Questionnaire in Cancer Patients". The aim of this scoping review was to systematically evaluate the existing screening tools for the assessment of patients' motivation in clinical settings.

Based on this, the current scoping review uses an enhanced version of Arksey and O'Malley's framework. They published the first cognitive framework for guiding scoping review. The 5 proposed steps include identification of the research question, identification of related studies, selection of studies, classification of data collection tools, summary, and reporting results. The results of this proposed study will be presented according to the PRISMA Extension for Scoping Reviews (PRISMA-ScR).^[9] The research questions are based on the research objective that was regulated using the Population/Context/Concept (PCC) framework.^[10] Definitions of patients' motivations were determined using Kyngäs *et al.* content analysis method [Table 1].^[6]

The first and secondary research questions were "Which patient's motivation tools are used in the clinical environment?" and "How is patient's motivation concept defined in the existing tools?" In the present review, Google Scholar (2100), PubMed (420), Scopus (200), and Web of Science databases (100) were searched for relevant English articles published between January 1995 and January 2020. The keywords included the terms "motivation" and "tool" and their synonyms including measurement, questionnaire, scale, and test.

The article selection criteria were written in English, use of a tool for measuring patient's motivation, presentation of the motivation in the title or keywords, and published in a peer-reviewed journal. In the initial review, authors independently screened articles to confirm whether the title and abstract were related to measuring motivation using a tool in a patient sample. Thus, 2820 articles were evaluated based on the selection criteria. From among them, 2720 articles were excluded because their full text was not accessible, or their subjects were not patients' motivation and they were about other concepts such as compliance, care takers' and nurses' motivations, quitting smoking, and exercise motivation, or there was a duplication of articles in databases. From the remaining 100 articles, 66 articles were eliminated because valid and reliable questionnaires had not been used in clinical settings and in adults. Any disagreement about the articles was resolved by the third author. Finally, the full text of 34 articles was entered into the final analysis [Figure 1].

All these articles were studied and evaluated based on information such as the title of the questionnaire, definition of motivation, purpose of designing the questionnaire, target population, country of origin, number of questions and subscales, and the underlying theory of the questionnaire [Tables 2 and 3].

Ethical considerations

The collected data were only used for scientific purposes, and the authorship and copyright rules was respected in the reporting and publication of the results. All articles obtained from the search were reviewed in the primary screening. They were not included in the study, if they did not meet the inclusion criteria. The researchers did not interfere in the process of article selection. The study was approved by the Ethics Committee of Kashan University of Medical Sciences, Iran (KAMUS.NUHPM.REC.1398.053).

Results

In the present study, 34 articles that introduced a motivation questionnaire were included; 13 studies (38%) introduced tools that were designed for the first time and 21 (62%) articles revised or performed psychometric studies on existing questionnaires. Most of these questionnaires (91%) were completed by the individuals on their own;

Table 1: Content analysis of patients' motivation tools

| Main categories | Motivation determinant factors | | Decision | Behavior |
|-----------------|---|--|-------------------------------|--|
| | Internal factors | External factors | | |
| Categories | Self-Determined (Autonomous, competency, dependence) | Perceived pressures Potential predictor Gain | Willingness Intent Goal | Seeking treatment Engagement in treatment Behavioral changes |
| | Individual traits Personal value Outcome expectancy | Situational influences Interpersonal influences Controlled situation | Desire | Readiness behavior Behavioral activation Behavioral efforts |

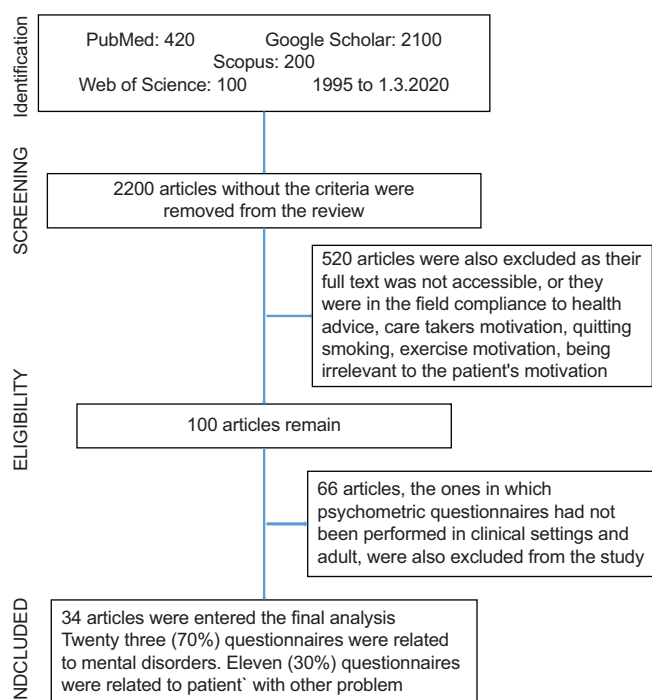


Figure 1: PRISMA Extension for Scoping Reviews (PRISMA-ScR)

however, 3 questionnaires were completed with the help of an expert,^[11-13] and 1 tool used a clinician’s observations observational version of the motivation for treatment scale (MfT-O).^[14] Most of these tools were designed and scored according to rating scale. The score of each question varied from 4^[15] to 10,^[16] and the number of questions in each questionnaire varied from 4^[17] to 85 questions.^[18]

Most of the tools were related to patient’s motivation in mental disorders. There were 9 tools (27%) that were indirectly related to the mental health field including 6 tools (18%) related to eating disorders,^[19-24] (1 tool related to drug abuse,^[13] and 3 tools (9%) related to alcoholism^[24-26] [Table 2]. The motivation tools for other diseases were limited to assessing the motivation of patients participating in post-traumatic stress rehabilitation,^[12,27] urinary incontinence control programs,^[28,29] and skeletal pain control programs [Table 2].^[30]

In these studies, the concept of motivation had been defined in various ways. In 21 studies (65%), it was defined theoretically based on theories such as Self-Determination Theory (SDT)^[13-14,18,23,31-35] or the Treatment Self-Regulation Questionnaire (TSRQ) model resulting from the theory of Ryan *et al.* (1989) theory of planned behavior.^[36,37] The transtheoretical model of change,^[24,31] 3D model of motivation for change,^[25] stages-of-change model of motivation,^[18] and social constructivist metatheory^[30] were other theories that had been used to define motivation. Intrinsic and extrinsic terminology was used in the tools according to SDT.

Other studies had designed the tools based on other questionnaires^[12,28,38,39] or mixed methods.^[11,15,26,30,40-42]

Most of the studies had provided limited descriptions of how theories and guidelines were operationalized in tools. Qualitative research, interviews, and content analysis had been used for the development of a questionnaire^[11,17,27,29,41] in 5 studies. Most questionnaires had been designed and suited in countries with English language and culture.^[15,17,19,24,26,27,29,32-35,38,40-44] Studies in other cultures were limited to the Dutch,^[12,14,16-18,31,36,37] German,^[20] Polish,^[37] Chinese,^[28] Italian,^[25] Swedish,^[11,30] and Iranian cultures.^[39] Definition of motivation: The definition of motivation varied considerably in different studies [Tables 2 and 3]. In the content analysis, 3 main categories were extracted which could reflect patient’s motivation. These categories were motivation determinant factors, decision, and behavior [Table 1]. Motivation determinant factors: This include internal Determined factors (Autonomous, competency and dependency), individual trait and outcome expectancy, as the motives for which behavior is performed for its own purpose, and external factors (perceived pressures, potential predictor, gain, situational influences, interpersonal influences and Controlled situation) as the motives which behaviors are affected from external influences.

Decision: The decision explains how people form intentions, willingness, goal, and desire-related behaviors. Decision is a cognitive process related to motivation. Decision can be defined independently from the behavior it regulates. Behavior: Behavior is that which equates a patient’s motivation with the exertion of effort. The sustained-effort perspective focuses on measuring seeking, engagement, change (get rid of a behavior), and readiness. It would have to refer to the effort and activity required in the treatment process. The findings from content analysis illustrated that internal and external motives provide the prologue to decisions, eventually, with a circular chain. This circular chain may begin with an internal factor, continue to a decision, and result in a behavior, and vice versa. According to the reviewed studies, interests, stimulants, sense of satisfaction, sense of control, willingness, and fear of consequences or even physical problems such as pain are common motives in clinical settings that influence patients’ decisions. This will lead to behaviors such as using clinical services, seeking treatments and professional help, a healthy lifestyle, change in behaviors, and willingness or unwillingness to participate in interventions.

Discussion

In this scoping review, the concept of patients’ motivation and the tools that have been designed to measure this concept in clinical settings are presented. The concept of motivation was ambiguous in most of the tools. There were no conceptual and operational definitions of motivation for nursing care. The findings from content analysis outlined the 3 categories of motivation determinant factors, decision, and behaviors. It is possible to design a short tool with

Table 2: Patient’s motivation tools for general diseases

| Author and year | The name of the questionnaire | Diagnosis, Number of patients | How questionnaire developed | Response format and number of items | Questionnaire dimensions and subscales | Concept definition |
|--|---|------------------------------------|---------------------------------|--|---|--|
| Siu and Lopez ^[28] (2010) Chinese | Intrinsic Motivation Inventory (IMI) | Urinary incontinence, n=150 | Questionnaire | 7-point Likert scale Self-report 21 -items | Interest-enjoyment Perceived competence Perceived-tension Perceived-choice | No definition provided in the article |
| Chervinsky et al. ^[27] (1998) English | Motivation for Traumatic Brain Injury Rehabilitation Questionnaire (MOT-Q) | Traumatic brain injury, n=174 | Interview with patient | 5-point Likert scale Self-report 31- items | Lack of denial Interest in rehabilitation Lack of anger Reliance on professional help | An important factor for rehabilitation therapy which may influence patients’ utilization and provision of clinical services and recovery |
| Boosman et al. ^[12] (2016) Dutch | Motivation for Traumatic Brain Injury Rehabilitation Questionnaire (MOT-Q) | Acquired brain injury, n=214 | Questionnaire | 5-point Likert scale observational 31- items | Interest in rehabilitation Lack of anger Lack of denial Reliance on professional help | An important factor for rehabilitation therapy |
| Clough-Gorr et al. ^[17] (2009) English | Getting-Out-of-Bed (GoB) Scale | Breast cancer, n=660 | Interview | 5-point Likert scale Self-report 4- items | – | The effort it takes to get oneself up-and-going for the day |
| Sarma ^[29] et al. (2009) English | Incontinence Treatment Motivation Questionnaire (ITMQ) | Stress urinary incontinence, n=210 | Interview | 5-point Likert scale Self-report 18 -items | Positive attitudes towards exercise, excuses for not doing PFMT*, living with incontinence, treatment participation and motivation to maintain PFMT | Seeking treatment for incontinence |
| Gard ^[30] et al. (2005) Sweden | Motivation for Change Questionnaire (MCQ) | Musculoskeletal pain, n=48 | Theory and Literature search | 7-point Likert scale Self-report 48- items | Social support in life / Mastery in life/ Challenges in life/ Control in life /Values Self-efficacy /Self-confidence | A summary of all motivating factors that stimulate an individual to make changes in his/ her life and work situation |
| Życińska et al. ^[37] (2012) Polish | Treatment Self-Regulation Questionnaire (TSRQ) | Chronic diseases, n=219 | Self-administered questionnaire | 7-point Likert scale Self-report 15- items | Autonomous motivation/External regulation/The internal consistency of factors | Behaviors that people get engaged in for their own sake, simply for the interest and satisfaction of performing them |
| Kearney et al. ^[43] (2006) English | Motivation Assessment Scale (MAS) and Resident Choice Assessment Scale (RCAS) | Developmental disabilities, n=335 | Theory | 7-point Likert scale Direct care staff 16- items | Sensory/Escape/ Attention Tangible | No definition provided in the article |

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Table 2: Contd...

| Author and year | The name of the questionnaire | Diagnosis, Number of patients | How questionnaire developed | Response format and number of items | Questionnaire dimensions and subscales | Concept definition |
|--|---|--|---|--|--|---|
| Grahn and Gard ^[11] (2008) Sweden | Motivation for Change Questionnaire (MCQ) | Prolonged musculoskeletal disorder, n=58 | A Literature,Theory, Interview with professionals and patients | 7-point Likert scale Self-report 48 -items | Challenge, control, interaction, social support, satisfaction, mastery, values, self-efficacy, and self-confidence | No definition provided in the article |
| El Miedany et al. ^[41] (2017) England | Development of the Patient Motivation Questionnaire | Arthritis, n=203 | Individual interviews and group discussion | VAS** from 0 to 10 10- items | One-dimensional scale that reflects patients' motivation and engagement | Patient's individual level to self-manage their disease and monitor changes who are proactive. |
| Derakhshanrad and Piven ^[39] (2016) Iran | Adapted Achievement Motivation Questionnaire (AAMQ) | Sustained strokes, n=25 | The Persian version of Hermans Achievement Motivation Questionnaire (PHAMQ) | 4-point scale 28- items | 10 aspects of behavior in order to measure the "achievement-oriented "The factors were perseverance, self-esteem, time-perception, seeking opportunities, diligence, competency, high ambition, and foresight. | Patients' willingness or unwillingness to participate in rehabilitation interventions |
| Oddy et al. ^[15] (2008) England and Wales | BIRT*** Motivation Questionnaire (BMQ) | Brain injury, n=72 | Content areas and again using relevant literature and clinical experience. | 4-point scale self-report 34-items | Initiation, indifference, lack of ideas, lethargy, hopelessness, anhedonia, indecision, perseveration, organization, and distractibility | An important potential predictor of engagement in rehabilitation and success in social, vocational, and personal adjustment |

*PFMT: Pelvic floor muscle therapy; **VAS: Visual analogue scale; ***BIRT: Brain Injury Rehabilitation Trust

general application that can be used in all diseases by using these categories.

Internal determined factors such as autonomy, competency dependency, individual traits, and outcome expectancy form decisions that are the cognitive process behind motivation. Decision is intention, willingness, goal, and desire to act a behavior in patients. It can be defined as a decision to action, active, readiness, seeking, and engagement during the treatment process. External factors such as perceived pressures, potential predictor, gain, situational influences, interpersonal influences, and controlled situation make a behavior to continue and become stable. This is a comprehensive definition of motivation; it consists of several theories such as theory of planned behavior, SDT, and stages of change.^[19,22,31]

Motivation is not the only factor influencing the patient's behavior. Therefore, a patients might not "enter into, continue, and adhere to a specific change strategy", because of external factors and internal factors, which are not under their volitional control. This definition pays attention to the effective factors in the formation of behavior and the continuation of behavior.

The tools assessed external factors and internal factors, but provided no insight into how to balance these types of factors in the clinical environment. Motivation is measurable in patients' behaviors. However, most of the tools were self-report tools. Motivation has behavioral components^[14] and it can be defined in relation to the patient's behavior during the treatment process.^[45,46] Observable behavior of patients' motivation can be assessed more easily by nurses. The main point to keep in mind is that patients' behaviors are expected to be compliant with motivation. In fact, this compliance may be associated with unreal motivation in patient.

In most of the studies, researchers had used theories to define the concept of motivation. These theories have the potential to contribute to our understanding of the concept of patients' motivation. For example, SDT describes motivation as the concept that specifies varied motivational subtypes, ranging from those focused on external controls and rewards to those stemming from more internal values. Autonomy, competence, relatedness, and satisfaction are sometimes used as analogues for intrinsic motivation.^[23,45,46] However, the application of these theories might be limited in chronic patients due to complex conditions such as the

Table 3: Patients' motivation tools for mental and behavioral disorders

| Author and year | The name of the questionnaire | Diagnosis, Number of patients | How questionnaire developed | Response format and number of items | Questionnaire dimensions | Concept definition |
|---|---|-------------------------------|--------------------------------|---|---|---|
| Ryan <i>et al.</i> ^[33] , (1995), English | Treatment Motivation Questionnaire (TMQ) | n=109, Alcohol dependence | Theory | 7-point Likert scale, Self-report, 26-items | Internalized motivation, interpersonal help seeking, confidence-in-treatment, external motivation | Motivation predicts and is inferred from patient behaviors |
| Ferron <i>et al.</i> ^[32] (2011), English | Treatment Motivation Questionnaire-Revised (TMQ-R) | n=424, serious mental illness | Theory | 7-point Likert scale, Self-report, 23-items | External/Intrinsic / Lack of Confidence/ Relatedness | One's behavior as determined by SDT* |
| Keijsers ^[38] <i>et al.</i> (1999), English | The Nijmegen Motivation List 2 (NML2) | n=133, Mental illness | Nijmegen Motivation List (NML) | 6-point scale, Self-report, 34-items | Namely active participation, distress/pressure from others/expectancy | The potential to predict treatment outcome |
| de Weert-Van Oene <i>et al.</i> ^[31] (2002), Dutch | Motivation for treatment (MfT) scale | Mental illness, n=279 | Theory | 5-point Likert scale, Self-report, 24-items | Recognition of general problems, recognition of specific problems, desire for help, and treatment readiness | Patients' perceived internal and external pressures, readiness and suitability for treatment |
| Gongora <i>et al.</i> ^[14] (2012), Dutch | Motivation for Treatment observational (MfT-O) scale, | Mental illness, n=243 | Theory | 5-point Likert scale, Observational, 22-items | Recognition of general problems, recognition of specific problems, desire for help, and treatment readiness | Recognition of substance use problems, readiness to change behaviors, interest and desire to make changes |
| Drieschner and Boomsma ^[18] , (2008) Dutch | Treatment Motivation Scales for forensic outpatient treatment (TMS-F) | n=378, Mental illness | Theory | 5-point Likert scale, Self-report, 85-items | Engage in the Treatment/Problem Recognition/Distress/ Perceived Legal Pressure/Perceived Costs of the Treatment/ Perceived Suitability of the Treatment/Outcome Expectancy | Defined as a patient's willingness to make various efforts to engage in their treatment |
| Drieschner and Boomsma ^[36] , (2008), Dutch | Treatment Motivation Scales for forensic outpatient treatment (TMS-F) | n=328, Mental illness | Theory | 5-point Likert scale, Self-report, 20-items | Engage in the Treatment/Problem/ Recognition/Distress/ Perceived Legal Pressure/Perceived Costs of the Treatment/ Perceived Suitability of the Treatment/Outcome Expectancy | Patient behaviors that enable treatment to be effective |
| Jochems <i>et al.</i> ^[16] , (2014), Dutch | Short Motivation Feedback List (SMFL) | n=348, Mental illness | Theory | 10-point scale, Self-report, 8-items | Interjected /external | An individual's engagement with psychiatric treatment |
| Choi <i>et al.</i> ^[34] (2010), English | Intrinsic motivation inventory for Schizophrenia Research (IMI-SR) | n=73, Schizophrenia | Theory | 7-point Likert scale, Self-report, 30-items | Interest/enjoyment, effort, value/ usefulness, pressure/ tension, and perceived choice | An internal locus of control that enables individuals to be more self-determined to complete an activity |

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Table 3: Contd...

| Author and year | The name of the questionnaire | Diagnosis, Number of patients | How questionnaire developed | Response format and number of items | Questionnaire dimensions | Concept definition |
|--|---|---|--|---|--|---|
| Van Beek and Verheul ^[42] , (2008), English | Motivation for Treatment Questionnaire in Patients With Personality Disorders (MTQ-8) | n=1083, Personality disorders | Questionnaire | 9-point Likert scale, Self-report, 8- items | Need for help, Readiness to change | An aspect that influences how best a patient engages in treatment |
| Pelletier <i>et al.</i> ^[35] , (1997), English | Client Motivation for Therapy Scale (CMOTS) | n=138, Mental illness | Theory | 5-point Likert scale, Self-report, 60-items, | Involves internal and external motives | Dynamic concept, and may change due to situational influences |
| Urbanoski and Wild ^[13] , (2012), English | Treatment Entry Questionnaire (TEQ) | n=1,152, Dependence on one or more substances | Theory | 7- point Likert scale, Self-report, 9- items | Identified/interjected/ external treatment motivation | Interest, and intent in pursuing and remaining in treatment |
| Miller and Tonigan ^[26] , (1996), English | The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) | n=1,672, Problem drinkers | Questionnaire and circulated among a dozen colleagues in substance abuse treatment research for their comments | 5-point Liker scale, Self-report, 18- items | Recognition, Ambivalence, Taking Steps | Progress as they initiate and maintain behavior change |
| Spiller <i>et al.</i> ^[25] , (2006), Italian | MAC2-A questionnaire | n=419, Alcohol related problems | Theory | 6-point scale, Self-report , 36- items | Discrepancy/self-efficacy/evaluate help-seeking | No definition provided in article |
| Pantalon ^[24] <i>et al.</i> , (2002), English | University of Rhode Island Change Assessment (URICA) scale | n=117, Mental Disorders | Theory | 8-point scale, Self-report, 32 -items | Pre contemplation/ Contemplation , Action/Maintenance/ Readiness composite/ Committed Action Composite | Ready to Change and quit right away |
| Martinez <i>et al.</i> ^[22] (2007), English | Bulimia Nervosa Stages of Change Questionnaire (BNSOCQ) | n=30 Adolescents inpatient | Questionnaire | Self-report, 20- items | Pre-contemplation / contemplation/ preparation/Action Maintenance | Desire for change and recovery |
| Geller <i>et al.</i> ^[21] , (2013), English | Readiness and Motivation Questionnaire (RMQ) | n=24, Eating disorders | Each of the 12 diagnostic questions from the EDE** | 5-point Likert scale, Self-report, 5- items | Pre-contemplation, action, internality, and confidence | Assesses readiness status and internality—the extent to which change, when occurring, is for internal versus external reasons |
| Gusella <i>et al.</i> ^[44] , (2003), English | Motivational Stages of Change for Adolescents Recovering from an Eating Disorder (MSCARED), | n=34, , Eating disorders | Theory | Questionnaire filled out together with an interviewer | Pre-contemplation/ Contemplation, Preparation/Action, Maintenance | No definition provided in the article |
| Pauli <i>et al.</i> ^[20] , (2017), Swiss-German | Anorexia Nervosa Stages of Change Questionnaire (ANSOCQ) | n=92, Eating disorders | Theory | 5-point Likert scale, Self-report, 20 items | Weight gain/control/ attitudes/feelings | No definition provided in article |

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Table 3: Contd...

| Author and year | The name of the questionnaire | Diagnosis, Number of patients | How questionnaire developed | Response format and number of items | Questionnaire dimensions | Concept definition |
|--|---|-------------------------------|--|--|--|---|
| Rieger and Touy ^[19] , (2006), English | Anorexia Nervosa Stages of Change Questionnaire (ANSOCQ) | n=115, Eating disorders | Theory | 5-point Likert scale, Self-report, 20 items | Weight Gain, Eating, Shape and Weight, and Ego-Alien Aspects | Patients' readiness to change anorexic symptomatology. |
| Sansfacon et al. ^[23] , (2019), English | Autonomous and Controlled Motivation for Treatment Questionnaire (ACMTQ), | n=463, Eating disorders | Theory | 7-point Likert rating, Self-report, 12-items | Autonomous and controlled subscales | When fully internal (presumed to be an optimal state for therapy) motivation is said to be autonomous. When driven by external incentives motivation is said to be controlled |
| Fehnell et al. ^[40] , (2004), English | Motivation and Energy Inventory (MEI) | n=339, Depression | Literature review, consultation with experts, and patient focus groups | 6-point scale, Self-report, 30- items | Physical energy/mental energy | Fatigue-energy continuum, such as the activation-deactivation adjective checklist |

*SDT: Self-Determination Theory. **EDE: Eating Disorders Examination

influence of time and lack of sufficient time for behavioral change. Further empirical evidence is needed to support the use of theories in evaluating and enhancing motivation in clinical settings.

The basic problem in the process of theory operationalization lies in the construction of tools that assess a patient's motivation and not its sources or the effects of the behavior itself. Such an approach has one undoubted advantage, the sources of patients' motivation processes can be monitored through psychological processes, whereas the effects of behaviors undergo cultural evaluation. Motivation is influenced by demographic characteristics and cultural conditions, so it is necessary to design motivation tools in different contexts in nursing. Moreover, patients' motivations fluctuate over time; thus, they should be conceptualized on an impermanent dimension, this requires that patients' motivations be conceptualized as depending on factors such as problem identification or outcome expectancies.^[6,11,45,46]

In this respect, the most important step is to design reliable and valid measurement tools for the assessment of patients' motivation in considering their experiences. All the concepts change over time and need to be re-defined for better application. Gathering qualitative information from health settings is imperative in order to understand how nurses, patients, and other health professionals comprehend and use patients' motivation concept in practice and in different cultures.^[11] thus, a more accurate criterion can be achieved for assessing patient's motivation.^[45]

Patients' motivation evaluation is essential for patient care. This scoping review was conducted to define motivation

and its dimensions in clinical settings according to the published studies. There is a need for more comprehensive and hybrid studies on the concept of motivation and its measurement. The gap in knowledge limits the use of existing tools in nursing care.^[11] In addition to general tools to assess patients' motivations, it seems nurses might need specific tools for the assessment of patients' motivations in different chronic conditions. The concept defined in this study can be helpful for researchers that are interested in designing a short tool for the measurement of motivation with general application.

This review was restricted to articles published in English. We did not include studies with synonyms of the term motivation in our review because of differences in conceptual constructs. As this article is a scoping review and not a systematic review, we did not critically appraise existing tools.

Conclusion

According to the present study results, motivations are the results of internal and external motives that lead to decisions and behaviors. Several tools exist that assess motivation in medical conditions. Nevertheless, most of them might not be appropriate for nurses because of limited scopes and ambiguity in definitions. Nurses need valid and reliable tools to classify levels of motivation among clients and recognize the need for motivation enhancing techniques as early as possible in the process of care. There is a need for the development and psychometric testing of more diverse questionnaires relating to motivation in the clinical environment, considering specific problems of different

chronic conditions. Furthermore, general motivation tools should be designed that can be used in different conditions. We recommend the assessment of multi-dimensional aspects of patients' motivations using observational scales that can be easily applied by nurses across various medical conditions.

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Conflicts of interest

Nothing to declare.

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