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Original article

Key Elements for, and Indicators of, a Successful Transition: An International Delphi Study

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A B S T R A C T

Purpose: The purpose of this study was to reach an international consensus to determine what key elements should be part of a transition program and what indicators could be used to assess its success.
Methods: For this purpose, a Delphi study including an international panel of 37 experts was carried out. The study consisted of three rounds, with response rates ranging from 86.5% to 95%. At each round, experts were asked to assess key elements (defined as the most important elements for the task) and indicators (defined as quantifiable characteristics). At each round, panelists were contacted via e-mail explaining them the tasks to be done and giving them the Web link where to complete the questionnaire. At Round 3, each key element and indicator was assessed as essential, very important, important, accessory, or unnecessary. A 70% agreement was used as cutoff.
Results: At Round 3, more than 70% of panelists agreed on six key elements being essential, with one of them (Assuring a good coordination between pediatric and adult professionals) reaching an almost complete consensus (97%). Additionally, 11 more obtained more than 70% agreement when combined with the Very important category. Among indicators, only one (Patient not lost to follow-up) was considered almost unanimously (91%) as essential by the panelists and seven others also reached consensus when the Very important category was included.
Conclusions: Using these results as a framework to develop guidelines at local, national, and international levels would allow better assessing and comparing transition programs.

IMPLICATIONS AND CONTRIBUTION

Using the Delphi technique, we reached an international consensus on six key elements and one indicator of a good transition from pediatric to adult health care for adolescents with chronic conditions. Both the key elements and the indicator were related to establishing a good partnership between pediatric and adult providers.

With more than 90% of chronically ill children surviving well into adulthood [1], the process of transition has become an unavoidable step in their development. The position paper of the Society of Adolescent Health and Medicine [2] postulates that "The goals of an organized, coordinated transition to adult care for young people with chronic conditions are: to optimize health and to facilitate each young person's attaining his or her maximum potential."

However, although a fair amount of literature has been devoted to the issue of transition, there is little empirical evidence on its key elements [3], and a solid evidence for "what works" is lacking [4,5]. Defining the key elements of transition programs that lead to better outcomes is needed to design efficient models of care [6]. Moreover, researchers point out that there are no indicators about how to characterize a transition as successful [7,8], and until it is understood how to evaluate this process as successful, it will be difficult to move research priorities forward [8]. Additionally, having indicators available should

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facilitate the evaluation of transition processes and the empirical determination of best practices [7].

The objective of this research was to reach an international consensus to determine what key elements should be part of a transition program and what indicators could be used to assess its success.

Methods

To answer these questions, a study based on the Delphi technique was carried out. This technique is a widely used and accepted method for reaching consensus [9]. It is commonly used in health and social sciences research [10] and has been previously used in adolescent health panels [8,11,12]. The Delphi technique is defined as "a group process used to collect the opinions of experts on a particular subject" [13]. We chose to have an international panel of experts; therefore, the Delphi method was appropriate as it does not require the physical presence of the panelists [13].

To achieve an international consensus, 30 experts in adolescent health from around the world (based on a review of the published literature in the domain of transition) were contacted in March 2014 to participate in the study. Of them, 26 agreed to participate and two did not answer after two reminders. The remaining two experts were unable to participate but recommended four other colleagues who also agreed to be part of the panel. Four panelists recommended nine additional experts who also agreed to participate. Of the 39 experts, two declined when the study was launched (May 2014) because of maternity leave and work overload.

All participants were asked to complete a short form indicating their academic degree(s), position, and main professional activity (percentage of their time devoted to clinical work, research, teaching, advocacy, management, and other matters) to describe the sample. The 37 panelists included 24 physicians, 8 nurses, 2 psychologists, 2 transition program managers, and 1 research director. Most panelists (21) devoted the main part of their time to clinical work, 11 to research, 2 to teaching, 1 to management, and 2 to program development. Among those doing mainly clinical work, 13 worked in adolescent health, 4 in pediatrics and 4 in adult health. Seventeen panelists had academic positions. Experts worked in Canada (6), the United States (5), Australia (5), the United Kingdom (5), Denmark (3), Switzerland (3), Sweden (2), Belgium (1), the Netherlands (1), Norway (1), Ireland (1), Hong Kong (1), Japan (1), the Philippines (1), and Argentina (1). Thirty-one of them were females. Although we tried to give geographical coverage of all regions, we could only identify one panelist in South America and none in Africa after careful literature research and inquiry among key adolescent health leaders in those regions.

The study consisted of three rounds. At each round, all experts were contacted via e-mail explaining them the task to be done and giving them the Web link where to complete the questionnaire. At each round, participants were given 2 weeks to answer. One gentle general reminder was sent to all those who had not answered 1 week later, and a personalized reminder was sent to those not having answered 2 days before closing the Web link. The authors acted as facilitators.

Each round included a first part referred to as key elements (defined as the most important elements for the task) that should be part of a transition program and a second one involving indicators (defined as quantifiable characteristics) that would allow describing a transition as successful. For each round, we used an online survey accessible through a link sent via e-mail, as done previously [11,14]. To reduce discord [13] and panelists' bias because of other experts' opinion [10], we decided to give a minimal feedback to participants after each round.

In the first round, participants were given a nonexhaustive list of 34 key elements and 32 indicators developed from a literature review (e.g., [7,15–18]). For each key element and indicator, participants could choose between five options: it should remain in the list (unchanged); it should be removed from the list (it is not associated with the transition process); it should be reformulated; it should be merged with another key element/indicator (because they basically refer to the same thing); it is rather a key element/indicator (and should be included in the other list). After each key element and indicator, participants had space to write a rational regarding their decision. Additionally, at the end of each part, they had space to add up to five key elements and five indicators that were not part of the original list and were asked to indicate the reason(s) for their inclusion.

In the second round, participants were given a very brief feedback indicating that according to their opinion in Round 1, the number of key elements had decreased from 34 to 25 and the number of indicators from 32 to 16. At this point, the experts were asked to rate each key element and indicator on a scale ranging from 1 (not important at all) to 5 (very important). A sixth option (0, remove) was also given if they wanted the key element or the indicator absolutely removed from the list. At the end of each list, participants had space to indicate if they wished to reformulate, merge, or remove any of the key elements or indicators.

For the third round, the only feedback participants received from the previous one was that both lists had been slightly reduced (from 25 to 22 key elements and from 16 to 14 indicators) and that the remaining items were ranked by the order of importance given by the panel. In this round, panelists had to rate each key element and indicator using a Likert-like scale: Essential (has to be part of/unavoidable to assess transition); Very important (needs to be there but not essential/not essential but its presence helps better assess transition success); Important (an important part of transition/important to help define a successful transition, but its absence will not change the appreciation dramatically); Accessory (nice to have it/it is good if it is there but it will not really be missed if not included); and Unnecessary (it should be removed from the list). As for the other rounds, participants had space to add any comments they wished at the end of each list. As only one indicator was above the determined cutoff if only the Essential category was used, we decided to also describe both the key elements and determinants that were above the cutoff when a combination of the categories Essential and Very important was used.

We predefined a 70% of agreement as the minimal consensus as described in the literature [19,20].

Descriptive statistics were used to summarize the panelists' opinions for closed questions at each round. Data were analyzed with SPSS 21 (IBM Corp., Armonk, NY) and were conducted blind to the names of the participants. Open comments were analyzed qualitatively and clustered into main themes.

The study was exempt by the Ethics Committee of the canton as it only asked the opinion of participants.