



Validation of an Instrument for Assessing Prospective Successors' Perceptions of Parenting Styles

Validação do Instrumento para Avaliação da Percepção de Potenciais Sucessores sobre Estilos Parentais

Validación de un Instrumento para Evaluar la Percepción de los Potenciales Sucesores sobre los Estilos Parentales

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Abstract

This study aimed to develop, validate, and test an instrument for assessing prospective successors' perceptions of parenting styles. The methodological process followed the instrument validation framework proposed by Piccoli et al. (2017), which comprises four stages: (1) questionnaire development, (2) face validity assessment, (3) content validation, and (4) reliability analyses using Cronbach's alpha coefficient, along with data adequacy and consistency tests conducted through Exploratory Factor Analysis (EFA). The instrument demonstrated a Cronbach's alpha coefficient of 0.723. The EFA provided an effective and satisfactory representation of the original data, with the factors comprising the Demandingness dimension accounting for 63.42% of the explained variance and those comprising the Responsiveness dimension accounting for 62.02% of the explained variance. These findings provide evidence of the instrument's validity and reliability, supporting its use as a tool for assessing prospective successors' perceptions of parenting styles.

Keywords: reliability analysis, content analysis, Cronbach's Alpha, exploratory factor analysis, generational succession.

Resumo

O objetivo deste estudo foi desenvolver, validar e testar um instrumento para avaliação da percepção dos(as) potenciais sucessores sobre os estilos parentais. O processo metodológico seguiu as etapas de validação do instrumento propostas por Piccoli et al. (2017) em quatro etapas: 1) construção do questionário; 2) análise de face; 3) validação de conteúdo e (4) análises de confiabilidade, por

meio do coeficiente Alpha de Cronbach e de testes de adequação e consistência dos dados, utilizando Análise Fatorial Exploratória (AFE). Como resultado, o Alpha de Cronbach do instrumento foi de 0,723. A Análise Fatorial Exploratória (AFE) explicou, de forma efetiva e satisfatória, os dados originais, visto que os fatores da dimensão “Exigência” obtiveram uma variância explicada de 63,42% e os fatores que compõem a dimensão “Responsividade” obtiveram uma variância explicativa de 62,02%. Esses resultados indicam que o instrumento desenvolvido apresenta evidências de validade e confiabilidade, podendo ser utilizado como ferramenta para avaliar a percepção de potenciais sucessores sobre os estilos parentais.

Palavras chaves: análises de confiabilidade, análise de conteúdo, Alpha de Cronbach, análise fatorial exploratória, sucessão geracional.

Resumen

El objetivo de este estudio fue desarrollar, validar y probar un instrumento para evaluar la percepción de los potenciales sucesores sobre los estilos parentales. El proceso metodológico siguió las etapas de validación de instrumentos propuestas por Piccoli et al. (2017), estructuradas en cuatro fases: (1) construcción del cuestionario; (2) análisis de apariencia; (3) validación de contenido; y (4) análisis de confiabilidad, mediante el coeficiente Alpha de Cronbach y pruebas de adecuación y consistencia de los datos utilizando Análisis Fatorial Exploratorio (AFE). Como resultado, el coeficiente Alpha de Cronbach del instrumento fue de 0,723. El Análisis Fatorial Exploratorio (AFE) explicó de manera efectiva y satisfactoria los datos originales, ya que los factores correspondientes a la dimensión “Exigencia” presentaron una varianza explicada del 63,42 %, mientras que los factores que componen la dimensión “Responsividad” alcanzaron una varianza explicada del 62,02 %. Estos resultados indican que el instrumento desarrollado presenta evidencias adecuadas de validez y confiabilidad, pudiendo ser utilizado como herramienta para evaluar la percepción de los potenciales sucesores sobre los estilos parentales.

Palabras clave: análisis de confiabilidad, análisis de contenido, Alpha de Cronbach, análisis factorial exploratorio, sucesión generacional.

Introduction

The transfer of farm management across generations is closely linked to the continuity of agricultural activities in rural areas, making generational succession a fundamental stage in this process. According to Coopmans et al. (2021), generational succession comprises three stages: the formation of the successor identity, the farm succession process, and farm development.

The first stage involves the gradual process through which an individual comes to identify with, or distance themselves from, the prospect of becoming the future manager of the family farm. During this phase, a successor identity may be developed, fostering the desire to become a farmer, or an interest in pursuing a different professional career may emerge. The second stage encompasses the transfer of both farm management and ownership, involving practical, legal, administrative, and symbolic actions. Finally, the third stage relates to the development of the farm in terms of its structure and strategic direction (Coopmans et al., 2021).

Previous studies have reported similar findings. In Brazil, Marin et al. (2012) argue that childhood is a social construct whose meanings have evolved over time and differ across social groups. Within this context, agricultural work plays a central role in transmitting accumulated practices, skills, and knowledge. The authors further emphasize that families are responsible for passing agricultural knowledge and ways of life from one generation to the next. By involving children and adolescents in farming activities, parents teach values such as responsibility, the importance of work, and the benefits of the rural way of life (Marin et al., 2012).

In Europe, Fisher and Burton (2014) explain succession through the concept of endogenous succession cycles, arguing that the process is socially constructed and that its success depends on the development and maintenance of these cycles. According to the authors, once these cycles are disrupted, attracting a successor becomes extremely difficult, regardless of public policy incentives. The absence of succession can be explained, at least in part, by the disruption of children's socialization during early childhood, a critical stage in the succession cycle (Fisher & Burton, 2014).

Beyond these considerations, Luft et al. (2025) argue that continuity across generations should not be understood as the simple transmission or repetition of values. Rather, it results from active processes of interaction, dialogue, and reinterpretation, through which family members continuously negotiate and adapt shared values over time.

From this perspective, generational succession extends beyond the transfer of farm ownership and management, encompassing earlier processes that may begin in childhood, particularly through children's involvement in agricultural activities. In this context, parents play a central role as their children's first and primary socialization agents.

One approach that may enhance understanding of this phenomenon is the analysis of parenting styles. Although parenting styles have been extensively studied in psychology, they have rarely been examined in relation to succession studies in rural settings. Broadly speaking, parenting styles refer to the constellation of attitudes that characterize parent-child relationships (Darling & Steinberg, 2017).

Examining generational succession through the lens of parenting styles may provide valuable insights into the formation of children's aspirations and expectations, which can, in turn, influence decisions and processes related to generational succession, as well as help identify potential challenges and sources of conflict. Accordingly, examining parenting styles from the perspective of children as prospective successors offers a valuable framework for understanding succession processes in family farms.

Despite these potential contributions, the literature reveals a lack of instruments specifically designed to measure prospective successors' perceptions of parenting styles within the context of generational succession in family farms. This gap gives rise to the following research question: How can an instrument be developed and validated to assess prospective successors' perceptions of parenting styles in the context of generational succession in family farms?

Building on these theoretical contributions, this study is grounded in the assumption that family socialization within agricultural settings is shaped by parent-child interactions, which can be understood through the framework of parenting styles, as proposed by Coopmans et al. (2021), Marin et al. (2012), and Fisher and Burton (2014).

Research on parenting styles demonstrates that family interactions influence children's values, behaviors, and life aspirations (Baumrind, 1966; Maccoby & Martin, 1983; Darling & Steinberg, 2017). In rural contexts, these interactions may play an important role in shaping successor identity and young people's perceptions of the continuity of farming activities. Accordingly, this study assumes that prospective successors' perceptions of parenting practices are closely linked to their understanding of agricultural socialization processes and the dynamics of generational succession. Therefore, there is a need for instruments capable of measuring these perceptions in a systematic and reliable manner.

Accordingly, the current study aimed to develop, validate, and test an instrument for assessing prospective successors' perceptions of parenting styles. The instrument was developed based on the Parental Demandingness and Responsiveness Scales proposed by Teixeira et al. (2004), which are well established in the literature and widely used in studies investigating family interactions. These scales have consistently proven suitable for assessing parent-child relationships across a variety of contexts. More specifically, this study sought to develop a new instrument tailored to the context of generational succession, as no instrument specifically designed for this purpose had been identified in the literature at the time the study was conducted.

In addition to this introduction, the article is organized into four sections. The first presents the theoretical foundations of parenting styles. The second discusses the instrument used to assess these parenting styles. The third describes the materials and methods employed in the study. Finally, the fourth presents the results and discussion, followed by the study's concluding remarks.

The Parenting Styles Approach

Parents are children's primary socialization agents and play a central role in shaping their values, expectations, and life aspirations. Accordingly, understanding how parenting practices may influence prospective successors' perceptions of and aspirations toward the continuity of farming activities is of particular importance. In this regard, the parenting styles framework provides a valuable theoretical lens for examining these relationships.

This framework was originally proposed by Baumrind (1966) in the 1960s and has since been extensively investigated in empirical research, particularly within the field of psychology. Baumrind developed a model that identified three parenting styles: authoritarian, permissive, and authoritative.

Regarding the characteristics of these three styles, authoritarian parents exhibit high levels of control, shaping and evaluating their children's behavior according to established, and often absolute, standards of conduct. They are typically inflexible, critical, and rigid, expecting rules to be followed without explanation or negotiation. Moreover, they tend to display low levels of warmth in interactions with their children, value obedience as a virtue, and endorse punitive disciplinary practices (Baumrind, 1971, 1991).

In contrast, permissive parents exhibit moderate to high levels of warmth and low levels of parental control, placing few demands on their children's maturity. They adopt a tolerant and accepting attitude toward their children's wishes and behaviors and are generally nonpunitive, avoiding the exercise of authority and the imposition of limits (Baumrind, 1971, 1991).

Authoritative parents, in turn, were defined by Baumrind (1971, 1991) as those who seek to guide their children's activities in a rational, purposeful manner. They encourage dialogue, exercise firm control, and establish appropriate standards of conduct when disagreements arise. While they communicate their adult perspective, they do not restrict their children, recognizing that they have their own interests and individual ways of approaching situations. Authoritative parents are warm and flexible, explain the rationale underlying family rules, and encourage autonomy and environmental exploration (Baumrind, 1971, 1991).

Subsequently, Maccoby and Martin (1983) reorganized this classification by introducing the dimensions of demandingness and responsiveness, further subdividing the permissive style into indulgent and neglectful parenting.

Parenting styles thus came to be classified according to these two dimensions. Demandingness refers to parents' efforts to regulate their children's behavior by establishing rules and enforcing limits. Responsiveness, in contrast, encompasses warmth, understanding, unconditional emotional support, and effective parent-child communication. Responsive parents are concerned with fostering their children's autonomy and self-assertion (Costa et al., 2000).

Based on this revised framework, four parenting styles are identified and systematized: authoritarian, authoritative, indulgent, and neglectful. Specifically, authoritarian parents are highly demanding and low in responsiveness (high demandingness, low responsiveness); authoritative parents are both highly demanding and highly responsive (high on both dimensions); indulgent parents are highly responsive but low in demandingness (low demandingness, high responsiveness); and neglectful parents are low in both demandingness and responsiveness.

Accordingly, the parenting styles literature offers a promising perspective for understanding socialization processes in agricultural settings and, consequently, decisions related to generational succession. Recent studies have highlighted that parenting styles may influence not only children's behavior and safety in agricultural environments but also their aspirations and intentions to assume responsibility for the family farm. For example, studies conducted by Becot et al. (2021) and Rudolphi et al. (2021) in the United States examined the association between parenting styles and farm-related childhood injuries.

From the authors' perspective, the agricultural socialization process has important implications for children's involvement in farm work (Becot et al., 2021; Rudolphi et al., 2021). In reviewing studies addressing risk exposure, they conclude that the literature provides valuable insights into the intersection between agricultural socialization and exposure to occupational hazards. Although parents often recognize the dangers associated with farm work, agricultural safety researchers have shown that the social and cultural pressures surrounding farming traditions and generational renewal are associated with children's participation in agricultural work and increased exposure to risk (Becot et al., 2021; Rudolphi et al., 2021).

More directly related to generational succession, Liu et al. (2024) reported that children of authoritative parents demonstrate stronger intentions to assume leadership of family businesses, suggesting that more responsive parenting styles may facilitate the intergenerational transfer of family-owned farms and agricultural enterprises. Conversely, Mussolino and Calabrò (2014) found that an authoritarian leadership style has a negative effect on successor behavior.

Instrument for Assessing Parenting Styles

For the purposes of this study, the Parental Demandingness and Responsiveness Scales were selected as the reference instrument. Although other instruments are available, this scale was chosen because it has been identified as the most widely used in the literature (Macarini et al., 2010) and is recommended for research and assessment of family interactions across diverse contexts. Furthermore, the final version of the instrument demonstrated Cronbach's alpha coefficients ranging from 0.78 to 0.92, providing evidence of construct validity and satisfactory internal consistency.

The Parental Demandingness and Responsiveness Scales were originally developed by Lamborn et al. (1991) in the United States. They were subsequently translated from English into Portuguese and validated in Brazil by Costa et al. (2000), serving as the foundation for an instrument tested in a Brazilian sample.

The scales were later refined by Teixeira et al. (2004). The authors argued that the original version lacked sufficient content coverage across its items and employed a three-point Likert response scale, which limited response variability. Following this refinement, the final version comprised 24 items, including 12 items assessing Demandingness and 12 assessing Responsiveness, together with a five-point Likert response scale (Teixeira et al., 2004).

The instrument enables the assessment of the parental dimensions of Demandingness and Responsiveness. Demandingness encompasses parental behaviors aimed at regulating children's conduct through the establishment of rules and limits, whereas Responsiveness refers to parents' supportive and understanding attitudes that, through emotional support, promote the development of children's autonomy and self-assertion (Teixeira et al., 2004).

Materials and Methods

The target population of this study comprised prospective successors. According to Bertolozzi-Caredio et al. (2020), prospective successors are defined as young individuals recognized by the farmer and their family as potential future successors. This recognition is based, at least in part, on their involvement in farm activities.

Given the difficulty of accessing prospective successors directly, the target population consisted of farmers' descendants — i.e., individuals related to the current farm owner and aged 18 years or older — following the criteria established by Morais (2017). In addition, participants were required to be familiar with or involved in activities carried out on the family farm, consistent with the concept of prospective successors proposed by Bertolozzi-Caredio et al. (2020).

Participants were recruited using the snowball sampling method, which, according to Biernacki and Waldorf (1981), enables sample recruitment through individuals who either share the characteristics of interest or know others who meet the predefined eligibility criteria. Initially, the questionnaire was distributed to key contacts, including agricultural cooperatives and educational institutions associated with the rural sector, based on existing professional networks. Participants were subsequently asked, whenever possible, to refer other individuals with similar characteristics.

Sample size was determined according to the recommendations of Hair et al. (2009), who suggest a minimum of five observations per item included in the instrument. The instrument assessing prospective successors' perceptions of parenting styles consisted of 22 items, with 11 items measuring the Demandingness Scale and 11 items measuring the Responsiveness Scale. Following Hair et al. (2009), the minimum required sample size was therefore 110 respondents.

Data collection was conducted between June and October 2023. A total of 258 responses were obtained, of which 252 were considered valid. Consequently, the analyses presented in this study are based on data from 252 respondents residing in different regions of the state of Rio Grande do Sul, Brazil. During data collection, questionnaires were administered to prospective successors, and respondents were assured that their answers would remain anonymous and would be analyzed only in aggregate form. The study was approved by the Human Research Ethics Committee (CAAE 70747923.3.0000.5346). In addition, the Free, Informed Consent Form (FICF) was provided together with the questionnaire, and participants were required to indicate their informed consent before participating in the study.

Instrument Development, Validation, and Testing

The development, validation, and testing of the instrument designed to assess prospective successors' perceptions of parenting styles followed the validation protocol proposed by Piccoli et al. (2017), consisting of four main stages: (1) questionnaire development, (2) face validation, (3) content validation, and (4) reliability analyses (Cronbach's alpha) and tests of data adequacy and consistency using Exploratory Factor Analysis (EFA).

Stage 1: questionnaire development

The questionnaire used to assess prospective successors' perceptions of parenting styles was developed based on the Parental Demandingness and Responsiveness Scales proposed by Teixeira et al. (2004). Although other instruments are available, this scale was selected because it has been identified as the most widely used in the literature (Macarini et al., 2010) and is recommended for research and assessment of family interactions across diverse contexts.

In addition, the instrument was informed by authors and studies recognized as key references in the field of generational succession, allowing the original items to be adapted to the agricultural context. For the Demandingness dimension, items were developed to assess parental control and monitoring. For the Responsiveness dimension, the questionnaire addressed parents' supportive and understanding behaviors toward their children. The initial version of the questionnaire comprised 23 items rated on a five-point Likert scale, including 11 items measuring Demandingness and 12 measuring Responsiveness.

Stage 2: instrument validation

Following questionnaire development, the second stage of the study consisted of instrument validation, which comprised two phases: face validation and content validation. Face validation is a qualitative procedure aimed at evaluating the semantic clarity and comprehensibility of questionnaire items and involves a panel of specialists who assess the representativeness of each item. The role of this expert committee is to consolidate the questionnaire versions and produce a pre-final version suitable for field testing (Beaton et al., 2000; Zandonai, 2015).

Experts were selected based on their experience in the study topic. Accordingly, this phase involved specialists in generational succession and education from different universities across Brazil. The experts evaluated the representativeness of each item with respect to its content and its relevance to the intended constructs.

Nine specialists from Brazilian universities were invited to participate: Universidade Federal de Santa Maria (UFSM; $n = 3$), Universidade Tecnológica Federal do Paraná (UTFPR; $n = 1$), Universidade Federal do Recôncavo da Bahia (UFRB; $n = 1$), Instituto Federal do Rio Grande do Sul (IFRS; $n = 1$), Universidade Federal de Goiás (UFG; $n = 1$), Universidade Federal da Grande Dourados (UFGD; $n = 1$), and Universidade Federal do Rio Grande do Sul (UFRGS; $n = 1$).

Each specialist received, via email, a brief summary containing the study instructions, the research proposal, and the instrument to be evaluated (Chart 1). They were given 20-30 days to provide their feedback. Of the nine invited specialists, five agreed to evaluate the instrument, representing the following institutions: UFSM ($n = 2$), UFRB ($n = 1$), IFRS ($n = 1$), UFG ($n = 1$), and UFGD ($n = 1$).

Chart 1

First version of the instrument for assessing prospective successors' perceptions of parenting styles

Demandingness Scale	1	2	3	4	5	Suggestions
E1. They required me to help with farming activities.						
E2. If I said, "I am not going to help with the farming activities," they insisted that I help anyway.						
E3. They supervised me while I was performing farming activities.						
E4. They required me to participate in farming activities without involving me in decision-making.						
E5. They required me to participate in farming activities without allowing me to share in the farm income.						
E6. They made decisions about the farm without discussing them with me.						
E7. They did not accept my opinions regarding decisions involving the farm.						
E8. They did not allow me to apply my technical knowledge on the farm.						
E9. If I performed activities or tasks in a way they disliked, they would insult me.						
E10. They always had the final say.						
E11. They were always very strict with me.						
Responsiveness Scale	1	2	3	4	5	Suggestions
R1. They openly discussed a wide range of topics with me.						
R2. They openly discussed farming activities and issues related to the farm with me.						
R3. They openly discussed succession with me.						
R4. They encouraged me to become the successor.						
R5. They patiently taught me how to perform farming activities.						
R6. They allowed me to participate in farming activities and in decisions concerning the farm.						
R7. They asked for my opinion on matters related to farming activities and the farm.						
R8. They felt confident assigning farming tasks to me.						
R9. They felt confident entrusting me with farm management decisions.						
R10. They encouraged me to become the successor by highlighting the advantages of continuing farming activities.						
R11. They encouraged me to pursue studies in the agricultural field.						
R12. I always received financial compensation for helping with farming activities.						

Source: Prepared by the authors (2024).

The experts evaluated each questionnaire item according to its relevance using a five-point scale ranging from 1 (not relevant/does not meet the criterion) to 5 (highly relevant/fully meets the criterion). In addition, they provided comments and suggestions for revisions, including the addition or removal of items. The evaluations were conducted independently, without any interaction among the experts.

Regarding the questionnaire items, one expert noted the absence of a guiding statement that could provide greater clarity for respondents, suggesting the inclusion of contextual wording before the items, such as "When I was a child, my parents [...]". As an alternative, the expert proposed replacing the original response format with a scale based on the statements "My parents did not behave this way" and "My parents behaved exactly this way." Based on these recommendations, the second alternative was adopted, resulting in a new response scale that incorporated these suggestions (Chart 2).

Chart 2

Response scale for the instrument assessing prospective successors' perceptions of parenting styles in the context of generational succession

My parents did not behave this way				My parents behaved exactly this way
1	2	3	4	5

Source: Prepared by the authors (2024).

The same expert also suggested replacing the original response format with a level-of-agreement scale (strongly disagree to strongly agree), arguing that some items were not compatible with the original response options (almost never or very little to usually or a great deal). This recommendation was considered appropriate and was therefore incorporated into the version used in the study.

More specifically, regarding the Demandingness items, one expert recommended removing the statement "They always had the final say," arguing that this concept was already addressed elsewhere in the questionnaire.

Concerning the item "They were always very strict with me," another expert suggested that it should be more specific, as respondents might interpret the notion of strictness differently. Accordingly, the item was revised to read: "They were always very strict with me regarding work and behavior."

Another expert emphasized the importance of explicitly addressing the physically demanding and strenuous nature of agricultural work. Consequently, the item "They required me to study because they considered the agricultural way of life to be difficult" was revised to: "They required me to study because they considered the agricultural way of life to be difficult, physically demanding, and strenuous."

Regarding the Responsiveness scale, one expert suggested removing the item "They openly discussed a wide range of topics with me," because its content substantially overlapped with the items "They openly discussed farming activities and issues related to the farm with me" and "They openly discussed succession with me."

Two experts also recommended including an item addressing children's autonomy in developing agricultural activities aligned with their own interests. Accordingly, the following item was added: "They encouraged me to establish an agricultural enterprise on the family farm that reflected my interests and that I enjoyed." In addition, at the suggestion of another expert, the following item was included: "They encouraged me to participate in field days, agricultural fairs, and other activities related to farming."

Following these revisions based on the experts' recommendations, the instrument was submitted to an education professional to evaluate the appropriateness of the wording and the clarity of the items. Overall, the reviewer considered the questionnaire appropriate but identified one exception involving the Demandingness item "If I performed activities/tasks in a way they disliked, I was called names." The reviewer argued that the expression "called names" was not appropriate for an academic instrument. Consequently, the item was revised to: "If I performed activities or tasks in a way they disliked, I was verbally reprimanded."

In addition to the descriptive analysis of the experts' evaluations, the Content Validity Index (CVI) and the Content Validity Ratio (CVR) were calculated to assess the level of agreement regarding the relevance of the instrument's items. The CVI is widely used in instrument development and validation studies to evaluate expert agreement concerning item relevance (Polit & Beck, 2006). It was calculated as the proportion of experts who rated each item as relevant or highly relevant (scores of 4 or 5 on the five-point scale), divided by the total number of experts.

The Content Validity Ratio (CVR) proposed by Lawshe (1975) was also calculated to evaluate the degree of consensus among experts regarding the essentiality of each item for measuring the target construct. The CVR was computed using the formula $CVR = (ne - N/2) / (N/2)$, where ne represents the number of experts who considered the item essential and N represents the total number of participating experts.

The results indicated a high level of agreement among the experts. Most items achieved a CVI of 1.00, indicating unanimous agreement that they were relevant or highly relevant. A small number of items yielded a CVI of 0.80, which is still considered acceptable according to the literature. Regarding the CVR, values ranged from 0.60 to 1.00, demonstrating satisfactory agreement among the experts regarding the essentiality of the evaluated items.

Following implementation of the revisions recommended by the expert panel, the instrument underwent pilot testing with a sample of 38 prospective successors to determine whether it was appropriate and comprehensible for the target population. This phase, referred to as content validation, constituted the second stage of the instrument validation process.

Overall, respondents considered the questionnaire appropriate and easy to understand, while providing several minor suggestions. Among these, they recommended merging two items from the Responsiveness dimension because they addressed highly similar content. Consequently, the items "They allowed me to participate in farming activities and in decisions concerning the farm" and "They asked for my opinion on matters related to farming activities and the farm" were combined into the following statement: "They allowed me to participate in farming activities and asked for my opinion regarding decisions concerning the family farm."

Another issue identified during the pilot test concerned the use of separate response scales for fathers and mothers, which respondents considered unnecessarily repetitive and burdensome. Accordingly, the instrument was modified so that participants responded with reference to either their father or their mother, specifically the parent who had been more actively involved in farming-related activities.

As a result, the final version of the instrument assessing prospective successors' perceptions of parenting styles consisted of 22 items, including 11 items measuring Demandingness and 11 items measuring Responsiveness. The final version of the instrument is presented in Chart 3.

Chart 3

Final version of the instrument assessing prospective successors' perceptions of parenting styles

1	2	3	4	5	
Strongly disagree (my parents did not behave this way)				Strongly agree (my parents behaved exactly this way)	
Regarding your father or your mother, consider the following statements:					
	1	2	3	4	5
E1. They required me to help with farming activities.					
E2. If I said that I would not help with the farming activities, they insisted that I help anyway.					
E3. They supervised me while I was performing farming activities.					
E4. They required me to participate in farming activities without involving me in decision-making.					
E5. They required me to participate in farming activities without allowing me to share in the farm income.					
E6. They made decisions about the family farm without discussing them with me.					
E7. They did not accept my opinions regarding decisions involving the family farm.					
E8. They did not allow me to apply my technical knowledge on the family farm.					
E9. They required me to pursue formal education because they considered the agricultural way of life to be difficult, physically demanding, and strenuous.					
E10. If I performed activities or tasks in a way they disliked, I was verbally reprimanded.					
E11. They were always very strict with me regarding work and behavior.					
R1. They openly discussed farming activities and issues related to the family farm with me.					
R2. They openly discussed succession with me.					
R3. They patiently taught me how to perform farming activities.					
R4. They allowed me to participate in farming activities and asked for my opinion regarding decisions concerning the family farm.					
R5. They felt confident assigning farming tasks to me.					
R6. They felt confident entrusting me with family farm management decisions.					
R7. They provided me with financial compensation for helping with farming activities.					
R8. They encouraged me to become the successor by demonstrating the advantages of continuing farming activities.					
R9. They encouraged me to pursue studies in the agricultural field.					
R10. They encouraged me to establish an agricultural enterprise on the family farm that reflected my interests and that I enjoyed.					
R11. They encouraged me to participate in field days, agricultural fairs, and other activities related to farming.					

Source: Prepared by the authors (2024).

Following this stage, additional refinements were made, and the final version of the questionnaire was administered to the study's target population.

Stage 3: internal consistency and construct validity

To assess the reliability of the instrument measuring prospective successors' perceptions of parenting styles, validation tests were conducted using Cronbach's alpha coefficient. According to Hair et al. (2009), this is the most widely used indicator for assessing internal consistency and the degree of correlation among the items of an instrument administered to a group. Regarding interpretation, Hair et al. (2009) state that the coefficient ranges from 0 to 1, with values between 0.60 and 0.70 considered the lower limit of acceptability, although alpha values between 0.80 and 0.90 are generally preferred (Hair et al., 2009).

In addition, Exploratory Factor Analysis (EFA) was performed to assess the adequacy and consistency of the data (Hair et al., 2009). According to Hair et al. (2009), EFA is a multivariate analytical technique involving statistical

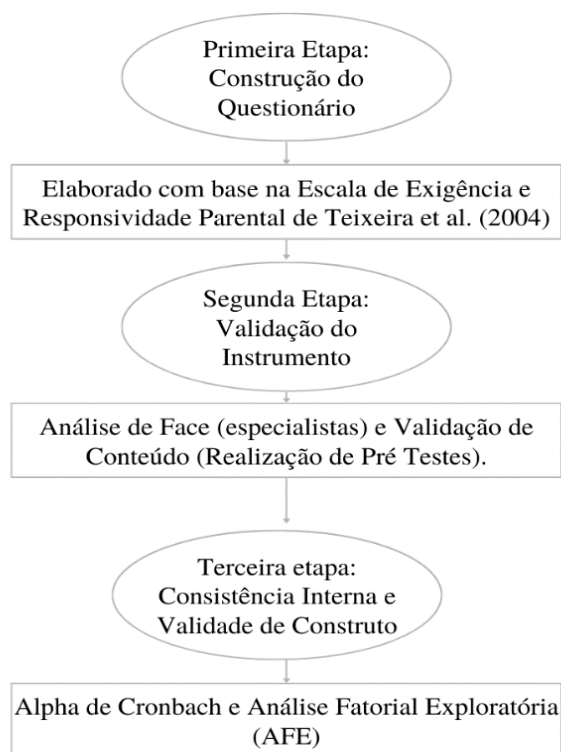
procedures that simultaneously examine multiple measurements related to the object of study. Exploratory Factor Analysis (EFA) was conducted using SPSS Statistics for Windows. Factors were extracted through Principal Component Analysis (PCA), followed by orthogonal Varimax rotation with Kaiser normalization, to facilitate interpretation of the factor structure.

To determine whether factor analysis was appropriate for the sample, two tests were performed: Bartlett's Test of Sphericity and the Kaiser–Meyer–Olkin (KMO) test. These tests are statistical procedures used to assess the quality of correlations among variables and determine whether factor analysis may appropriately proceed (Pestana & Gageiro, 2005).

Bartlett's Test of Sphericity was conducted to determine whether the correlations between pairs of variables could be explained by the remaining variables included in the study — ie, whether the correlations among variables were statistically significant, thereby allowing a limited number of factors to represent a substantial proportion of the variability in the data. The KMO test was subsequently applied. This test represents the ratio of squared correlations to squared partial correlations among variables and produces standardized values ranging from 0 to 1 (Field, 2009). The communality criterion was used to determine which variables should be retained in the factor analysis, with variables presenting communalities greater than or equal to 0.50 being retained. The stages of instrument development, validation, and testing are summarized in Figure 1.

Figure 1

Stages of instrument development, validation, and testing.



Source: Prepared by the authors (2026).

Results and Discussion

This section presents the final stage of instrument validation, which involved reliability analysis and tests of data adequacy and consistency based on data obtained from 252 prospective successors. Of these participants, 66.7% were male and 33.3% were female, and they were distributed across different regions of the state of Rio Grande do Sul. Reliability was assessed using Cronbach's alpha, whereas data adequacy and consistency were examined through EFA, as presented below.

Reliability Analysis

Reliability analysis was conducted at two time points: after pilot testing with 38 respondents and after completion of data collection with 252 respondents. Following pilot testing, the Cronbach's alpha coefficients observed for the final version of the instrument were 0.772 for the two dimensions assessed jointly (Responsiveness and Demandingness), 0.925 for the Demandingness dimension, and 0.844 for the Responsiveness dimension, as shown in Table 1.

Table 1

Internal consistency of the factors according to Cronbach's alpha after pilot testing

Items	Cronbach's alpha
Demandingness	0.925
Responsiveness	0.844
Demandingness and Responsiveness	0.772

Source: Field research; prepared by the authors (2024).

The reliability analysis conducted after completion of data collection is presented in Table 2. As shown, the 11 items comprising the Demandingness scale yielded a Cronbach's alpha coefficient of 0.851, whereas the items related to Responsiveness yielded a coefficient of 0.902. When all variables were considered jointly, Cronbach's alpha was 0.723.

Table 2

Internal consistency of the factors according to Cronbach's alpha after completion of the study

Items	Cronbach's alpha
Demandingness	0.851
Responsiveness	0.902
Demandingness and Responsiveness	0.723

Source: Field research; prepared by the authors (2024).

Hair et al. (2009) indicate that Cronbach's alpha values between 0.60 and 0.70 are considered acceptable. The findings therefore provide evidence of adequate construct validity and internal consistency, as demonstrated by the coefficients obtained in this study. Accordingly, the developed, validated, and tested instrument may be considered reliable and suitable for use in future studies on this topic.

Tests of Data Adequacy and Consistency

Data adequacy and consistency were assessed through EFA. Initially, Bartlett's Test of Sphericity was conducted to determine whether the correlations among variables were statistically significant, followed by the KMO test. Bartlett's Test of Sphericity yielded a value of 2,677.676, with a significance level of $p < 0.001$, demonstrating significant correlations among the variables in the investigated sample (Hair et al., 2009). The KMO test yielded a value of 0.881, indicating that data were suitable for factor analysis.

Table 3

KMO and Bartlett's tests

Test		
KMO measure of sampling adequacy		0.881
Bartlett's test of sphericity	Approximate chi-square	2,677.676
	df	231
	Significance	0.000

Source: Field research; prepared by the authors (2024).

The communality criterion was used to determine which variables should remain in the factor analysis. Communality is a measure of the proportion of variance explained by the extracted factors (Field, 2009). Under this approach, values equal to or lower than 0.50 indicate that factor analysis does not satisfactorily explain the correlations involving the

respective variables. Therefore, variables with extracted communalities equal to or lower than 0.50 were excluded from the analysis (Latif, 1994). A sequential assessment of communalities and factor loadings was then conducted, resulting in the removal of one variable: E11. They were always very strict with me regarding work and behavior.

Another criterion concerned the percentage of variance explained by the factors, for which approximately 60% is considered satisfactory, according to Malhotra (2011). After the necessary adjustments, the factor analysis showed that the factors comprising the Demandingness dimension explained 63.42% of the variance. In turn, the factors comprising the Responsiveness dimension explained 62.02% of the variance. Both values were considered satisfactory, as shown in Table 4.

Table 4

EFA of the instrument assessing prospective successors' perceptions of parenting styles

Factors	Loading	Communality	Variance
Demandingness Factor			
E1. They required me to help with farming activities.	0.829	0.692	63.42%
E2. If I said that I would not help with the activities, they insisted that I help anyway.	0.829	0.748	
E3. They supervised me while I was performing farming activities.	0.528	0.344	
E4. They required me to participate in farming activities without involving me in decision-making.	0.557	0.706	
E5. They required me to participate in farming activities without allowing me to share in the farm income.	0.520	0.631	
E6. They made decisions about the farm without discussing them with me.	0.735	0.641	
E7. They did not accept my opinions regarding decisions involving the farm.	0.860	0.756	
E8. They did not allow me to apply my technical knowledge on the farm.	0.757	0.614	
E9. They required me to pursue formal education because they considered the agricultural way of life to be difficult, physically demanding, and strenuous.	0.887	0.789	
E10. If I performed activities or tasks in a way they disliked, I was verbally reprimanded.	0.524	0.558	
Responsiveness Factor			
R1. They openly discussed farming activities and issues related to the farm with me.	0.547	0.556	62.02%
R2. They openly discussed succession with me.	0.743	0.573	
R3. They patiently taught me how to perform farming activities.	0.756	0.639	
R4. They allowed me to participate in farming activities and asked for my opinion regarding decisions concerning the farm.	0.797	0.738	
R5. They felt confident assigning farming tasks to me.	0.743	0.567	
R6. They felt confident entrusting me with decisions related to farm management.	0.679	0.543	
R7. They provided me with financial compensation for helping with farming activities.	0.680	0.463	
R8. They encouraged me to become the successor by highlighting the advantages of continuing farming activities.	0.805	0.709	
R9. They encouraged me to pursue studies in the agricultural field.	0.674	0.738	
R10. They encouraged me to establish an agricultural activity on the farm that reflected my interests and that I enjoyed.	0.733	0.717	
R11. They encouraged me to participate in field days, agricultural fairs, and other activities related to farming.	0.664	0.579	

Source: Field research; prepared by the authors (2024).

As shown, item E9 ("They required me to pursue formal education because they considered the agricultural way of life to be difficult, physically demanding, and strenuous") presented the highest factor loading (0.887), indicating that perceived parental demandingness is strongly associated with preparing children to cope with the challenges of rural work. This finding suggests that, from the parents' perspective, their children's education and technical training represent central strategies for socialization and the transmission of agricultural values. Previous studies (Boscardin & Conterato, 2017), however, indicate that perceptions of the strenuous nature of rural work may also lead parents to encourage their children to seek opportunities outside agriculture so that they do not experience the same living and working conditions. This highlights a tension among demandingness, care, and generational succession planning.

In addition, items such as E1 ("They required me to help with farming activities") and E2 ("If I said that I would not help with the activities, they insisted that I help anyway") also exhibited high factor loadings, reinforcing the interpretation

that direct demands for participation in farming activities constitute a central aspect of parental demandingness. These items reflect both behavioral control and the expectation that children will be actively involved in farm work, which are elements emphasized in studies of family socialization in agricultural contexts, including those conducted by Becot et al. (2021) and Rudolphi et al. (2021).

Conversely, items such as E3 ("They supervised me while I was performing farming activities") and E5 ("They required me to participate in farming activities without allowing me to share in the farm income") presented lower factor loadings (0.528 and 0.520, respectively), indicating that not all forms of control or imposition are perceived equally as expressions of demandingness. Direct supervision may be less relevant in contexts in which children are already autonomously integrated into farming activities, whereas participation in decision-making or farm income management appears to constitute a more meaningful indicator of perceived parental control.

In summary, the findings suggest that children's perceptions of parental demandingness are strongly associated with preparation for rural work and the transmission of rules and responsibilities. Nevertheless, this dimension presents important nuances, as items related to direct supervision or lack of financial participation were less relevant to children's perceptions. These findings therefore reinforce the need to understand parental demandingness as a multifaceted construct that may influence prospective successors' aspirations and succession intentions, thereby supporting the interpretation of this factor within the context of generational succession on family farms.

Final Considerations

This study aimed to develop, validate, and test an instrument designed to assess prospective successors' perceptions of parenting styles. The face and content validation procedures conducted with experts in the field, together with pilot testing, enabled the refinement of the instrument, making it clearer and more appropriate for the research objectives.

Furthermore, the statistical analyses indicated satisfactory levels of internal consistency and data adequacy. Instrument reliability, assessed using Cronbach's alpha coefficient, yielded acceptable values, while the EFA demonstrated a consistent and appropriate structure for measuring the proposed construct.

Accordingly, the instrument demonstrated evidence of validity and reliability and represents a promising tool for assessing children's perceptions of parenting styles within the context of generational succession on family farms. By incorporating a framework commonly used in psychology into the study of rural succession, this research broadens the analytical perspectives through which factors influencing whether young people remain in or leave rural areas may be examined.

One limitation of the study is that it was conducted within a specific context, which may restrict the generalizability of the findings. Further research in different regions and sociocultural contexts is therefore recommended to test and refine the instrument and to deepen understanding of the role of psychological factors in generational succession processes.

Although the EFA enabled the identification of the empirical structure of the data, the Demandingness and Responsiveness dimensions are already theoretically grounded and have previously been validated in the literature. Accordingly, conducting a Confirmatory Factor Analysis (CFA) may represent an important additional step in assessing the fit between the theoretical model and the empirical data. Future studies should therefore employ CFA to statistically test the proposed structure of the instrument and further strengthen its construct validity.

Finally, this study provides relevant theoretical and practical contributions. From a theoretical perspective, it advances understanding of the psychological factors that influence generational succession by integrating the parenting styles framework, traditionally applied in psychology, into the rural context. From a practical perspective, the instrument may be used by other researchers interested in this topic, enabling analyses across different contexts and through diverse research approaches and thereby contributing to the advancement of scholarship in the field and to the formulation of strategies aimed at supporting generational succession. The instrument may also be used by rural extension professionals and public policymakers to identify potential succession-related challenges and guide strategies that encourage young people to remain in rural areas.

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