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Toward a Practical Tool for Holistic Wellbeing: Pilot Study of the 7DHW Questionnaire

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ABSTRACT

Holistic wellbeing encompasses multiple interconnected dimensions that contribute to an individual's quality of life, extending beyond physical health to include mental, emotional, social, and environmental factors. This pilot study aimed to be part of the validation process of the Holistic Wellbeing Questionnaire, a novel tool based on the 7 Dimensions of Holistic Wellbeing (7DHW) model based on the principles of WHO [1]. The questionnaire assesses seven domains: Self-Esteem, Body Image, Social Relationships, Environmental Wellbeing, Meaningful Work, Health Knowledge, and Sense of the Future. Eight participants completed the questionnaire at two time points, approximately six months apart. The results revealed an overall improvement in global wellbeing scores, with a modest increase in the average score from 5.16 to 5.41. Positive trends were observed in domains such as Meaningful Work and Sense of the Future, while declines were noted in Health Knowledge and Environmental Wellbeing. Participant-level analysis highlighted notable improvements among some individuals, but others experienced declines, emphasizing variability in responses. This study provides initial evidence of the questionnaire's reliability and highlights key areas for refinement, including the content and engagement of specific dimensions. The findings contribute to the ongoing validation process of this tool, advancing its potential for assessing and promoting multidimensional wellbeing in diverse contexts.

Keywords

Holistic Wellbeing, Multidimensional Assessment, Quality of Life, Wellbeing Dimensions, Pilot Study, WHO.

Introduction

Holistic wellbeing is an increasingly prominent area of focus in health and psychological research, recognizing that an individual's overall quality of life (QoL) extends beyond physical health to encompass mental, emotional, and social dimensions. The World Health Organization (WHO) emphasizes that wellbeing is a dynamic state shaped by various inter- connected factors [1-3] from self-esteem and relationships to environmental and occu- pational contexts. Over time, researchers have advanced multidimensional models such as Ryff's Six Dimensions of Psychological Wellbeing [4] and Keyes' flourishing framework [5], underscoring the interconnected nature of these domains. Despite these advancements, challenges persist in developing tools that comprehensively capture these facets in cohesive and practical formats.

The *"7 Dimensions of Holistic Wellbeing"* (7DHW) theoretical model [6] offers a structured approach to understanding wellbeing through seven interconnected domains: self-esteem, body image, social relationships, environmental conditions, meaningful work, health knowledge, and a sense of the future. This model highlights the multidimensional nature of wellbeing and is the foundation for developing new methodologies to assess and improve individual and collective QoL [7-10]. However, while conceptually robust, this model needs more empirical validation in practical settings, limiting its utility in research and applied contexts.

This paper represents one of the first phases of the validation process for the Holistic Wellbeing Questionnaire, a tool developed based on the 7DHW model [6]. This initial step is part of a larger effort to ensure the tool's reliability, validity, and practical relevance. By piloting the questionnaire with a sample of participants, we

aim to evaluate its consistency over time and identify areas for refinement.

The primary goal of this pilot study is to assess the reliability and consistency of the questionnaire by analyzing participants' responses across two-time points. By establishing this foundational evidence, the study provides a critical step toward a validated instrument that can be utilized in theoretical research and practical applications to assess and promote holistic wellbeing.

While existing wellbeing frameworks highlight the importance of multidimensional approaches, there needs to be empirically validated instruments that capture the inter- connected domains of holistic wellbeing [7,11-13]. Specifically, tools rooted in the 7DHW model are limited, restricting the model's utility in practical applications such as intervention design and longitudinal studies.

This study contributes to closing this gap by presenting the initial validation of the Holistic Wellbeing Questionnaire, a tool developed based on the 7DHW model [6]. As one of the first phases of this validation process, the paper evaluates the questionnaire's reliability and consistency over time. The findings aim to establish a foundation for its broader application in research and practice. Additionally, the study offers insights into participant perceptions across key wellbeing dimensions, providing a basis for future questionnaire refinement.

This paper addresses the following research questions: (1) What does each scale in the Holistic questionnaire mean and evaluate in terms of wellbeing? (2) Is the Holistic Wellbeing Questionnaire a reliable tool for assessing multidimensional wellbeing across time? (3) How consistent are the participant's answers to the questionnaire when comparing two time points? (4) Based on the pilot data, Are there notable variations or trends in specific dimensions of the 7DHW model?

We hypothesize that the Holistic Wellbeing Questionnaire will demonstrate high reliability and variability in the values given in the participants' responses at two points in time, indicating its potential as a robust tool for assessing multidimensional wellbeing. It will also make it possible to assess the variability of wellbeing stability at multiple points in time.

This paper represents an essential step in the validation process for the Holistic Wellbeing Questionnaire. By piloting the instrument with a sample of participants, we aim to evaluate its consistency and identify areas for improvement, thereby contributing to its development as a practical tool for assessing and enhancing holistic wellbeing.

In the following sections, we outline the methodology employed in this pilot study, present the findings, and discuss their implications for the broader validation process and future research and use of the Holistic Wellbeing Questionnaire.

Methodology

This section outlines the study's methodological approach. First, it introduces the Holistic Scale of Body and Mental Health and Wellbeing, detailing the theoretical foundation and the dimensions it assesses. Moreover, it describes the participant recruitment process, highlighting demographic characteristics and inclusion criteria. It then explains the procedures followed during data collection, including the timeline and methods for questionnaire administration. Finally, it discusses the analytical techniques employed to evaluate the data, focusing on reliability measures and comparing participant responses over time.

Holistic Scale of Body - Mental Health and Wellbeing

In order to carry out this study, a holistic wellbeing assessment questionnaire was created. This questionnaire is based on the theoretical model 7 Dimensions of Holistic Wellbeing (7DHW) [6], based on the guidelines of the World Health Organization [1]. The questionnaire's questions are divided into the seven dimensions of the 7DHW theoretical model. The dimensions assessed in this questionnaire are: i) self-esteem, ii) body image, iii) social relationships, iv) environment, v) meaningful work, vi) health knowledge, and vii) a purpose and a sense of future. Each of these dimensions is correlated with each other and explores different domains. The holistic questionnaire explores the following seven dimensions with associated definitions, themes and questions:

Group A - Self-esteem: Refers to a stable and positive sense of self-worth and confidence [14,15]. Questions about self-acceptance, self-confidence, autonomy, and the ability to deal with adversity. Topics include setting boundaries, bonding with others, and self-awareness.

Group B - Body Image: Defines how a person perceives and feels about their physical appearance [16]. Perception of one's own body. Addresses body satisfaction, experiences of body shaming (public and private), and body positivity. Also includes questions about clothing accessibility and style.

Group C - Social Relationships: Defined as the presence of strong, supportive social connections and meaningful friendships [17]. Questions assess the quality and autonomy of relationships, sense of belonging, and comfort in giving, sharing, or asking for needs in relationships.

Group D - Environmental: Refers to living in a healthy and stable environment without pollution, violence, or instability [18-20]. It focuses on awareness of environmental changes, such as climate change impacts, air quality, and the importance of connecting with nature through rituals like meditation or walking.

Group E - Meaningful Work: A job that feels purposeful and is carried out in a healthy, supportive work environment [21,22]. Explores satisfaction with organizational conditions, the meaningfulness of work, work-life balance, inclusivity, teamwork, financial stability, and physical work environment preferences.

Group F - Health Knowledge: The ability to access health care and the knowledge to make informed health decisions [23-26]. Questions assess the frequency of accessing medical and psychological care, dietary habits (biologic and processed food preferences), and general health awareness.

Group G - Sense of the Future: Refers to the feeling that the present is fulfilling and that the future holds hope and opportunities [25,27,28]. A present worth living in and hope for a future worth living in. Focuses on positive emotions, engagement, relationship quality, sense of meaning, accomplishment, and flow experiences. Questions about pursuing hobbies, developing skills, and balancing ambition with other life priorities are included.

Each dimension uses a Likert-scale format, between 1 and 7 (where 7 reflects more positive responses), inviting participants to reflect deeply on their experiences and perceptions.

Participants

Participants were recruited through a direct approach process, more specific through the method of convenience sampling. All participants voluntarily consented to participate by signing an informed consent form.

A total of eight participants were recruited (Table 1), all of whom identified as female. Their ages ranged from 30 to 53 years, with a mean age of 39.75 years (SD = 8.24). All participants resided in Portugal, South Europe, and held Portuguese nationality. Six participants reported no physical illnesses, while one reported conditions including rheumatoid arthritis, acute asthma, psoriasis, and chronic migraines. Another participant indicated a diagnosis of hypertension. None of the participants reported a formal diagnosis of mental illness.

Table 1: Demographic information about participants. P - Participant, F - Female.

Participant ID	Age	Gender	Nationality
P1	44	F	Portuguese
P2	44	F	Portuguese
P3	30	F	Portuguese
P4	31	F	Portuguese
P5	47	F	Portuguese
P6	53	F	Portuguese
P7	46	F	Portuguese
P8	33	F	Portuguese

In terms of behavioral characteristics, six participants were not taking any medications, while two were undergoing prescribed treatments for hypertension and chronic migraines. Psychotherapy history showed that three participants had previously engaged in therapy, whereas five had not. Physical activity levels varied, with frequencies ranging from no exercise to up to four times per week. All participants were actively engaged in work or other responsibilities, with none reporting retirement.

This demographic profile reveals a group that is homogeneous in gender and nationality but diverse in age and health status. This variability provides a foundation for exploring the broader implications of their responses within their health and social contexts.

Procedure

We recruited eight participants for a pilot study to analyze their responses to a holistic questionnaire designed for validation. Participants completed the questionnaire twice, approximately six months apart, to evaluate consistency in their responses over time. Both rounds were conducted online, and the questionnaire remained unchanged between the two administrations. We analyzed the responses from each session to identify any variations and assess the questionnaire's reliability.

Analysis

The questionnaire was structured into seven dimensions, with questions grouped according to these thematic areas. Participants responded to each question using a Likert scale ranging from 1 to 7, where higher scores consistently reflected more positive responses. Depending on the type of question, the scale descriptors varied: for some questions, 1 represented "Never" and 7 represented "Always," while for others, 1 indicated "Strongly Disagree" and 7 indicated "Strongly Agree."

To analyze the responses, we calculated the mean Likert scale score for each dimension at both time points, enabling a comparison of the average values across the two administrations of the questionnaire. Using the mean and standard deviation, we performed a comparative analysis of each participant's responses between the two time points. This approach allowed us to identify changes, both positive and negative, in scores across the seven dimensions, providing insights into variations in participants' perceptions over time.

Results

This section presents the findings from the two-time answers to the Holistic Questionnaire, focusing on aggregate and individual-level changes across the seven dimensions of the 7DHW model. Descriptive statistics compare average scores and standard deviations between the first and second time points, highlighting trends in participant responses over time. The results are organized to show patterns at the group (dimension) level and across individual participants, providing a comprehensive view of the questionnaire's preliminary performance and the variability in perceived wellbeing.

Tables 2 and 3 show the average Likert scale values of the answers given by each of the eight participants in this pilot study.
Table 4 shows the difference between the average values obtained the first time the participants answered the questionnaire and the second time. This table makes it possible to analyze the negative or positive trend in the participants' responses from one time to the next.

Table 2: Statistic information of the answers given by the eighth participants of the pilot study to the questionnaire questions separated by group dimensions (First time answering the questionnaire). P - Participant.

Groups	P1	P2	P3	P4	P5	P6	P7	P8	Global
Group A Average	4.50	5.33	4.25	5.42	5.50	5.67	6.50	4.42	**5.20**
Group A Standard Deviation	0.90	1.23	0.87	1.68	0.80	1.50	0.67	1.16	0.71
Group B Average	5.00	4.00	3.67	4.67	4.00	3.00	5.67	4.67	**4.34**
Group B Standard Deviation	2.00	1.73	1.15	3.21	1.00	1.00	0.58	3.21	0.78
Group C Average	5.25	6.13	6.00	6.88	6.25	6.75	6.50	3.57	**5.92**
Group C Standard Deviation	0.71	0.35	1.07	0.35	0.46	0.71	0.53	1.81	1.00
Group D Average	6.25	6.88	6.38	7.00	6.57	6.25	6.50	6.83	**6.58**
Group D Standard Deviation	0.89	0.35	0.52	0.00	0.53	0.71	0.53	1.81	0,27
Group E Average	6.00	6.29	6.00	7.00	6.86	5.43	6.43	5.43	**6.18**
Group E Standard Deviation	0.00	0.49	0.00	0.00	0.38	1.62	0.79	1.81	0.55
Group F Average	4.85	4.29	3.14	3.57	3.36	2.29	4.36	3.43	**3.66**
Group F Standard Deviation	0.99	1.82	1.56	2.68	1.78	1.73	1.91	1.87	0.76
Group G Average	3.91	5.25	4.88	5.54	5.33	5.21	5.75	5.17	**5.13**
Group G Standard Deviation	0.85	1.11	1.08	1.50	1.37	1.64	0.99	1.15	0.52
Global Average	4.81	5.39	4.79	5.55	5.29	4.95	5.83	4.69	**5.16**
Global Standard Deviation	1.18	1.41	1.49	2.00	1.61	2.03	1.33	1.76	0.39

Table 3: Statistic information of the answers given by the eighth participants of the pilot study to the questionnaire questions separated by group dimensions (Second time answering the questionnaire). P - Participant.

Groups	P1	P2	P3	P4	P5	P6	P7	P8	Global
Group A Average	5.00	5.42	4.67	6.33	5.67	5.82	6.08	4.58	**5.45**
Group A Standard Deviation	0.00	0.79	0.65	0.89	0.65	1.17	0.51	1.16	0.60
Group B Average	4.33	4.33	4.33	5.00	4.00	4.67	4.33	4.67	**4.46**
Group B Standard Deviation	1.15	1.15	1.15	1.00	1.73	0.58	1.53	3.21	0.29
Group C Average	6.00	6.00	5.75	6.88	5.75	6.13	6.25	5.13	**5.99**
Group C Standard Deviation	0.00	0.00	0.46	0.35	0.46	1.13	0.46	1.55	0.47
Group D Average	7.00	6.75	6.63	6.25	6.75	5.13	6.50	5.50	**6.31**
Group D Standard Deviation	0.00	0.46	0.52	1.39	0.46	2.30	0.53	2.78	0.62
Group E Average	7.00	6.57	6.00	6.43	6.29	6.67	6.86	5.71	**6.44**
Group E Standard Deviation	0.00	0.53	0.00	0.79	0.49	0.82	0.38	0.95	0.40
Group F Average	3.43	4.14	4.07	3.57	3.21	2.25	4.07	3.43	**3.52**
Group F Standard Deviation	2.24	1.79	2.06	2.59	2.01	2.01	2.09	1.74	0.58
Group G Average	5.92	5.75	4.92	5.96	5.00	4.88	5.58	5.71	**5.47**
Group G Standard Deviation	0.41	0.85	0.83	1.04	1.06	1.39	1.06	0.55	0.43
Global Average	5.47	5.75	4.92	5.96	5.00	4.88	5.58	5.71	5.41
Global Standard Deviation	1.54	1.29	1.31	1.75	1.57	1.98	1.44	1.69	0.39

Table 4: Difference between the mean values of the first time answering the questionnaire and the second one by the eighth participants of the pilot study. P - Participant.

Groups	P1	P2	P3	P4	P5	P6	P7	P8	Global
Group A	0.500	0.083	0.417	0.917	0.167	0.152	-0.417	0.167	0.248
Group B	-0.667	0.033	0.667	0.333	0.000	1.667	-1.333	0.000	0.088
Group C	0.750	-0.125	-0,250	0.000	-0.500	-0.625	-0.250	1.554	0.069
Group D	0.750	-0.125	0.250	-0.750	0.179	-1.125	0.000	-1.333	-0.269
Group E	1.000	0.286	0.000	-0.571	-0.571	1.238	0.429	0.286	0.262
Group F	-1.418	-0.143	0.929	0.000	-0.143	-0.036	-0.286	0.000	-0.137
Group G	2.004	0.500	0.042	0.417	-0.333	-0.333	-0.167	0.534	0.333

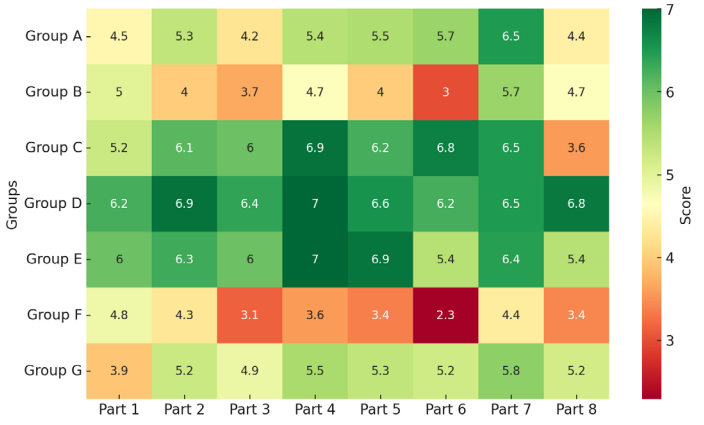

Figure 1: Heat map representative of the difference between the mean values of the first time answering the questionnaire and the second one by the eighth participants of the pilot study.

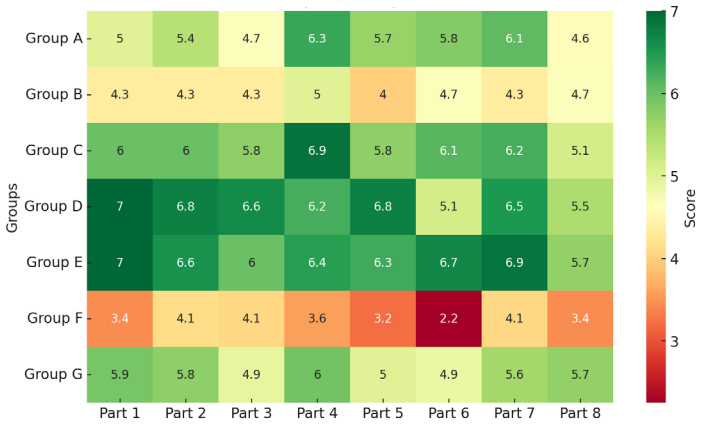

Figure 2: Heat map representative of the difference between the mean values of the first time answering the questionnaire and the second one by the eighth participants of the pilot study.

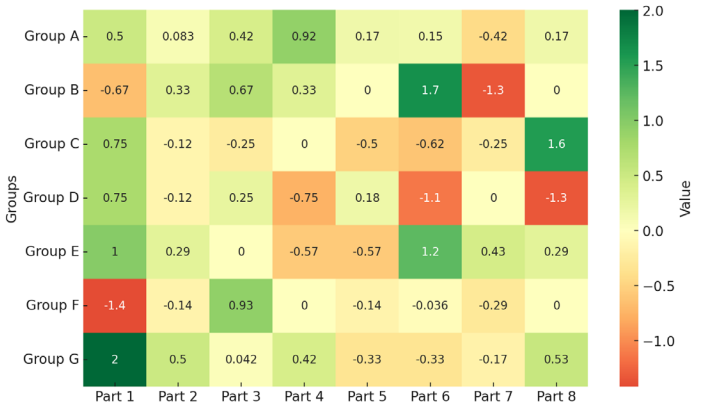

Figure 3: Heat map representative of the difference between the mean values of the first time answering the questionnaire and the second one by the eighth participants of the pilot study.

Discussion

This section interprets the findings from the pilot study in the context of the questionnaire's reliability and its capacity to capture changes in multidimensional wellbeing over time. By comparing participant responses across the two assessment points, we identify both trends and fluctuations in the seven dimensions of the 7DHW model [6]. These patterns offer preliminary insights into which wellbeing areas are more stable, responsive to change, or in need of refinement. The following subsections present a detailed analysis at the group and individual levels, followed by broader reflections on emerging trends, contextual influences, and implications for the future of the Holistic Wellbeing Questionnaire.

Group-Level Observations

To better understand how each domain of the 7DHW model performed over time, we analyzed changes at the group (dimension) level across all participants. This approach allows us to assess the relative stability, sensitivity, and effectiveness of each wellbeing dimension within the questionnaire. By examining average scores and their variations between the two-time points, we can identify which dimensions showed consistent trends, which exhibited significant shifts, and where the tool may require refinement to better capture participants' experiences.

1. **Group A (General Trend of Improvement)**
   - **First-Time Average Global Score:** 5.20
   - **Second-Time Average Global Score:** 5.45
   - **Difference:** +0.248
   - **Discussion:** Group A slightly improved overall scores between the two-time points. Most participants showed small but consistent gains, suggesting an increasing alignment with the questions about "Self-Esteem" over time.

2. **Group B (Consistently Low Scores with Slight Improvement)**
   - **First-Time Average Global Score:** 4.34
   - **Second-Time Average Global Score:** 4.46
   - **Difference:** +0.088
   - **Discussion:** Group B continued to score low overall, with only a marginal increase between the two-time points. This suggests persistent challenges in this domain of "Body Image," possibly requiring targeted interventions.

3. **Group C (Minimal Change in Scores)**
   - **First-Time Average Global Score:** 5.92
   - **Second-Time Average Global Score:**5.99
   - **Difference:** +0.069
   - **Discussion:** Group C's scores remained relatively stable, indicating that participants' perceptions of "Social Relationships" were consistent.

4. **Group D (Decline Over Time)**
   - **First-Time Average Global Score:** 6.58
   - **Second-Time Average Global Score:** 6.31
   - **Difference:** -0.269
   - **Discussion:** Group D experienced a decline in scores, particularly among participants P5 and P7, as indicated by individual differences in Table 4. This could indicate growing dissatisfaction or challenges regarding the "Environment".

5. **Group E (Stable High Scores with Slight Improvement)**
   - **First-Time Average Global Score:** 6.18
   - **Second Time Average Global Score:** 6.44
   - **Difference:** +0.262
   - **Discussion:** Group E showed strong and consistent improvement, becoming the group with the highest overall scores in the second time point. This indicates growing alignment and positive perceptions about "Meaningful Work".

6. **Group F (Persistently Low Scores with Some Participants Declining)**
   - **First-Time Average Global Score:** 3.66
   - **Second-Time Average Global Score:** 3.52
   - **Difference:** -0.137
   - **Discussion:** Group F remained the lowest-scoring group overall, with slightly declining scores. Participants P6 and P5 had significant negative differences, reflecting ongoing discontent or challenges in the "Health Knowledge" domain.

7. **Group G (Significant Improvement)**
   - **First-Time Average Global Score:** 5.13
   - **Second-Time Average Global Score:** 5.47
   - **Difference:** +0.333
   - **Discussion:** Group G showed the largest improvement across all groups. This may indicate increasing resonance with this group's questions or an improvement in the related "A Sense of Future" domain over time.

Across the seven dimensions of the 7DHW model, Group G (Sense of the Future), Group E (Meaningful Work), and Group A (Self-

Esteem) showed the most notable improvements between the two-time points, suggesting these areas may be particularly responsive to change or more clearly resonant with participants. Group B (Body Image) remained consistently low, showing only marginal improvement (+0.088), which may indicate underlying sensitivity around this topic or a need for greater clarity or support in how this dimension is framed. In contrast, Group F (Health Knowledge) and Group D (Environment) experienced declines, pointing to potential challenges in participant engagement, perceived relevance, or external contextual influences. Group G registered the highest positive shift (+0.333) among all dimensions, while Group D showed the greatest decline (- 0.269). These findings offer valuable guidance for refining the questionnaire and highlight specific domains that may require targeted intervention or further exploration in future studies.

Participants-Level Observations

While group-level trends provide an overview of how each wellbeing dimension performed collectively, individual-level analysis offers a deeper understanding of personal variability in responses. By examining the change in scores for each participant across the two-time points, we can explore how individuals experienced and interpreted the questionnaire over time. This granular view helps uncover patterns of improvement, stability, or decline within specific dimensions, shedding light on the tool's responsiveness to personal contexts and highlighting areas where individualized support or questionnaire adjustments may be needed.

Participant 1

- **First-Time Global Score:** 4.81
- **Second-Time Global Score:** 5.47
- **Difference:** +0.66
- **Key Observations:**
  - Participant 1 demonstrated a clear overall improvement.
  - The largest increase was in Group G (+2.004), indicating strong positive alignment with the "A Sense of Future" domain.
  - Minimal changes were seen in Groups A (Self-Esteem) and B (Body Image), showing stable perceptions in these personal domains.
- **Discussion:** Participant 1's improvement suggests a growing positive experience or understanding of the questionnaire, particularly in domains aligned with Group G - A Sense of Future.

Participant 2

- **First-Time Global Score:** 5.39
- **Second-Time Global Score:** 5.75
- **Difference:** +0.36
- **Key Observations:**
  - Moderate improvement overall, with positive changes in Groups A - Self- Esteem (+0.083), G - A Sense of Future (+0.5), and F - Health Knowledge (+0.143).
  - A small decline was observed in Groups C - Social Relationship and D - Environment (-0.125 each).
- **Discussion:** Participant 2's positive change was largely driven by their improved responses to Group G - A Sense of Future, offset by slight disengagement or dissatisfaction in Groups C - Social Relationship and D - Environment.

Participant 3

- **First-Time Global Score:** 4.79
- **Second-Time Global Score:** 5.55
- **Difference:** +0.76
- **Key Observations:**
  - Strong improvement overall, with the largest increase in Group F - Health Knowledge (+0.929).
  - Positive changes were also noted in Group B - Body Image (+0.667) and Group A - Self-Esteem (+0.417).
  - Minor declines were observed in Groups C - Social Relationship and G - A Sense of Future.
- **Discussion:** Participant 3's responses reflect significant progress in Health Knowledge (Group F), which was previously a weaker area.

Participant 4

- **First-Time Global Score:** 5.55
- **Second-Time Global Score:** 5.96
- **Difference:** +0.41
- **Key Observations:**
  - Consistent improvement across multiple groups, particularly in Group G (+0.417) and Group A (+0.917).
  - Positive changes were also noted in Group B - Body Image (+0.667) and Group A - Self-Esteem (+0.417).
  - Minor declines were observed in Groups C - Social Relationship and G - A Sense of Future.
- **Discussion:** Participant 3's responses reflect significant progress in Health Knowledge (Group F), which was previously a weaker area.

Participant 5

- **First-Time Global Score:** 5.29
- **Second-Time Global Score:** 5.00
- **Difference:** -0.29
- **Key Observations:**
  - The largest negative change among all participants was in Groups F - Health Knowledge (-1.418) and C - Social Relationships (-0.5), which experienced significant declines.
  - Minor improvements were observed in Groups A - Self-Esteem and G - A Sense of Future.
- **Discussion:** Participant 5 requires focused attention to understand the decline, particularly in Health Knowledge (Group F), where their scores dropped the most.

Participant 6

- **First-Time Global Score: 4.95**
- **Second-Time Global Score: 4.88**
- **Difference: -0.07**

- **Key Observations:**
  - Relatively stable overall, with slight declines in Groups F - Health Knowledge (-0.036) and C - Social Relationships (-0.625).
  - However, a notable positive change was observed in Group B - Body Image (+1.667).
- **Discussion:** Participant 6 demonstrated growth in Body Image (Group B) but struggled slightly in other areas.

Participant 7

- **First-Time Global Score: 5.83**
- **Second-Time Global Score: 5.58**
- **Difference: -0.25**
- **Key Observations:**
  - Declines were most notable in Group D - Environment (-1.333) and Group A - Self-Esteem (-0.417).
- **Discussion:** Participant 7's scores suggest disengagement or dissatisfaction with Environmental aspects (Group D), which may warrant further exploration.

Participant 8

- **First-Time Global Score: 4.69**
- **Second-Time Global Score: 5.41**
- **Difference: +0.72**
- **Key Observations:**
  - Strong improvement overall, with the largest positive change in Group C - Environment (+1.554).
  - Minor declines were seen in Groups D - Environment and G - A Sense of Future.
- **Discussion:** Participant 8's positive trend highlights growth in domains aligned with Group C - Social Relationships, although slight dissatisfaction in Environmental (Group D) aspects is evident.

Participants 1, 2, 3, and 8 demonstrated notable improvements between the first and second assessments, particularly in Group G (Sense of the Future), Group F (Health Knowledge), and Group C (Social Relationships), indicating a growing alignment with these domains. In contrast, Participants 5, 6, and 7 showed overall declines, especially in Groups F (Health Knowledge) and D (Environment), suggesting possible challenges or disengagement in these areas. Notably, Participant 3 exhibited the greatest improvement (+0.76), driven by substantial gains in Health Knowledge. Conversely, Participant 5 experienced the largest decrease in overall score (-0.29), marked by significant drops in Health Knowledge and Social Relationships, highlighting domains where additional support or focused intervention may be beneficial.

Global-Level Trends

The overall trends in participant responses indicate a modest improvement in global aver- age scores from the questionnaire's first to the second administration. The **global average score** increased from **5.16** in the first session to **5.41** in the second session, reflecting a **positive difference of +0.25**. This positive distinction suggests a slight but consistent increase in alignment or resonance with the questionnaire's themes over time.

Despite the general positive trend, variations were observed across groups and participants. Groups G (Sense of the Future), E (Meaningful Work), and A (Self-Esteem) contributed most to the improvement in global scores, demonstrating participants' growing engagement or satisfaction in these areas. In contrast, Group F (Health Knowledge) and Group D (Environment) exhibited declining trends, with negative global differences of -0.137 and -0.269, respectively, signalling challenges or disengagement in these domains. At the participant level, most individuals displayed improvements, particularly Participants 1, 3, and 8, who showed the largest positive differences in global scores. However, Participants 5 and 7 demonstrated declines in their overall scores, suggesting areas of concern. Participant 5, in particular, showed the most significant decrease, driven by negative trends in Groups F (Health Knowledge) and C (Social Relationships).

Contextual Reflection

The findings from the questionnaire offer valuable insight into how individuals are experiencing and responding to key dimensions of wellbeing within their personal, societal, and cultural contexts. By examining the positive and negative trends in participants' responses, we can understand how broader social, economic, and environmental forces may be influencing these patterns. While some domains such as Self-Esteem, Meaningful Work, and Sense of the Future show promising upward trends that reflect growing alignment with values of personal development and organizational wellbeing, other areas, like Health Knowledge and Environment, reveal concerning declines that may mirror systemic challenges and societal anxieties. Together, these patterns provide a nuanced snapshot of how wellbeing is shaped by the evolving realities of our time, underlining the importance of addressing both individual and structural factors in promoting holistic health and quality of life.

Positive Trends

The overall increase in global scores reflects a growing alignment with the questionnaire's domains, particularly in areas such as Self-Esteem, Meaningful Work, and Sense of the Future. This positive trend may suggest an increased awareness of, or resonance with, the dimensions of wellbeing over time, driven by societal and organizational shifts. The improvement in outlook in these areas aligns with broader societal changes, where self- esteem and individual empowerment are increasingly emphasized. This trend is supported by widespread messaging across social media, educational initiatives, and self-help movements, all promoting the value of maintaining and enhancing self-esteem as a cornerstone of personal development and mental health. Research by Orth and Robins [29] highlights the importance of self-esteem as a critical predictor of life satisfaction and mental health, reinforcing its role in overall wellbeing.

Similarly, the growing emphasis on meaningful work reflects changes in organizational culture. Many companies now recognize the critical role of worker wellbeing in fostering productivity,

engagement, and long-term organizational success. Policies promoting quality work environments, employee satisfaction, and strong team cohesion are frequently highlighted as essential elements of a positive workplace culture. Studies by Bakker and Demerouti [30] on the Job Demands-Resources model illustrate how meaningful work and supportive environments enhance employee motivation and reduce burnout, aligning with the upward trend seen in participant responses. Furthermore, focusing on a "Sense of the Future" suggests that people are increasingly attuned to setting long-term goals and building resilience. This may be partly attributed to shifts in societal attitudes, where professional and personal planning for the future is regarded as essential to stability and wellbeing. According to Seligman [31], fostering hope and optimism about the future is crucial in cultivating positive mental health, which resonates with the trends observed in the questionnaire's domains.

These findings suggest that the positive trends in global scores reflect individual aware- ness and systemic efforts by organizations and societal movements to prioritize wellbeing across diverse domains. This alignment underscores the importance of continued focus on these areas to further enhance wellbeing.

Negative Trends

The declines in Health Knowledge and Environment scores highlight critical areas where participants may face challenges, reflecting broader societal and systemic issues. These negative trends underscore the need for increased attention to environmental and health- related domains to promote holistic wellbeing.

The decline in scores related to the Environment aligns with the growing global concern over environmental crises, including climate change, deforestation, pollution, and biodiversity loss. Despite widespread environmental awareness campaigns, such as those advocating for sustainable consumption, renewable energy, and climate action, the ongoing severity of these issues may lead to feelings of helplessness or "eco-anxiety" among individuals [32]. This psychological response to environmental degradation may partially explain the lower scores in this area, as participants struggle to reconcile their awareness with the perceived lack of significant progress or control over global environmental challenges.

Similarly, in Health Knowledge, the decline may reflect challenges within healthcare systems and societal attitudes toward health education. In Portugal, for instance, public health services have faced considerable strain in recent years. Reports of long waiting times, limited access to medical specialists, and deteriorating conditions in healthcare infrastructure have likely contributed to public dissatisfaction [33]. These systemic barriers can undermine individuals' trust in healthcare systems and their ability to access reliable health information, which may explain the lower scores observed in this area.

Moreover, the lack of comprehensive health education programs and clear communication about health risks and preventative measures may exacerbate this issue. As society navigates complex public health challenges such as pandemics, chronic disease management, and mental health crises, gaps in health knowledge can become more apparent. Nutbeam's [34] framework on health literacy emphasizes that individuals require access to information and the capacity to understand and apply it to make informed decisions about their health. The low scores in this area may thus reflect systemic shortcomings in health education and accessibility, which are critical for empowering individuals to take charge of their health.

Overall, these negative trends highlight the need for targeted interventions to address environmental awareness and health knowledge deficiencies. Enhanced health literacy campaigns, improved access to healthcare services, and stronger environmental education initiatives could play a vital role in reversing these declines and fostering greater engagement in these domains.

Study Limitations

While this pilot study provides valuable initial insights into the Holistic Wellbeing Questionnaire's potential, several limitations must be acknowledged that constrain the generalizability and interpretation of the results.

Sample Size and Composition

The most significant limitation is the small and homogenous sample size. With only eight participants, all of whom were Portuguese and identified as female, the sample lacks demographic diversity in terms of gender, nationality, cultural background, and socio-economic status. This restricts the generalizability of the findings, as the results may not reflect the experiences or wellbeing profiles of broader or more varied populations.

Cultural Context

Because all participants were from Portugal, cultural factors may have influenced how questions were understood and answered. This is especially relevant for constructs such as self-esteem, body image, or meaningful work, which may vary significantly across cultural contexts. Further cross-cultural validation is required.

Despite these limitations, the study represents an important step in the initial validation process of the 7DHW-based instrument. Future research should address these issues by expanding the sample, applying randomization, including control or comparison groups, and conducting longitudinal studies across diverse cultural contexts.

Conclusions and Further Studies

This pilot study represents a foundational step in validating the Holistic Wellbeing Questionnaire, grounded in the 7 Dimensions of Holistic Wellbeing (7DHW) model [6]. The results indicate that the questionnaire demonstrates promising consistency over time, with a general upward trend in overall wellbeing scores. Domains such as Self-Esteem, Meaningful Work, and Sense of the

Future strongly aligned with participants' evolving experiences, suggesting these areas may be especially sensitive to positive change. At the same time, declines in Health Knowledge and Environmental Wellbeing underscore the importance of contextual and systemic factors that may hinder progress in these domains.

This study contributes meaningful preliminary evidence supporting the questionnaire's reliability and multidimensional structure. It also provides important feedback for refining item clarity, balance across dimensions, and cultural adaptability. Further studies are essential to establish the instrument's broader applicability and psychometric robustness. Future research should focus on:

- Expanding the sample size and diversity across age, gender, nationality, and socioeconomic status;
- Conducting longitudinal studies over extended periods to assess long-term reliability and sensitivity to change;
- Comparing results with existing validated wellbeing instruments to assess convergent validity;
- Testing the tool in different cultural and linguistic contexts to ensure cross-cultural relevance;
- Exploring the questionnaire's utility in applied settings such as therapy, organizational health, and public policy evaluation.

Ultimately, the Holistic Wellbeing Questionnaire holds considerable potential as a practical, integrative tool for assessing and promoting multidimensional wellbeing. Its continued development and validation will support a more nuanced, human centred approach to wellbeing research, policy design, and individual flourishing.

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