

UNA INTRODUCCIÓN A LA INVESTIGACIÓN EN MÉTODOS MIXTOS

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IIQM/MMIRA Webinar

14 abril 2020

MMIRA OBJETIVOS, BENEFICIOS, COSTE

- Fundada en 2013 como un foro para avanzar en el diálogo sobre métodos mixtos entre un grupo diverso de académicos a nivel mundial. mensuales.
- Los beneficios de pertenecer a la asociación incluyen la posibilidad de consultar una biblioteca de más de 30 seminarios web archivados sobre diversos temas; la posibilidad de cursar módulos de formación en línea con reconocimiento propio de finalización, y la participación en webinars mensuales.
- Cuotas de membresía: \$USD 65 regulares; estudiantes \$USD 8; países en desarrollo \$USD5.

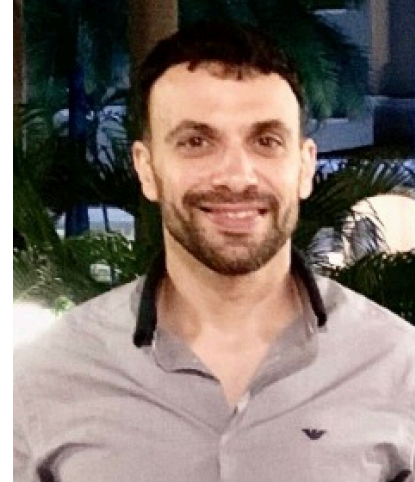


¿QUIÉNES SOMOS?



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CONTENIDO DEL WEBINAR

1. Definición de métodos mixtos y desarrollo disciplinar e histórico
2. Justificaciones para el uso de métodos mixtos
3. Diseños mixtos básicos y avanzados
4. Calidad metodológica y de reporte de los métodos mixtos
5. Desarrollo de redes hispano-hablantes y latinoamericanas sobre métodos mixtos



I. DEFINICIÓN DE MÉTODOS MIXTOS (MM) Y DESARROLLO DISCIPLINAR E HISTÓRICO

DEFINICIÓN DE MÉTODOS MIXTOS

- Los métodos mixtos (MM) son un tipo de investigación en que un investigador o un equipo de investigadores:
 - Recoge y analiza datos **cuantitativos** (CUAN) y **cualitativos** (CUAL) con el fin de responder a preguntas de investigación cuantitativas y cualitativas
 - Usa un tipo de **diseño MM** que determina la lógica interna de cada componente así como la interrelación entre ambos: propósito, prioridad de CUAN y CUAL, secuencialidad y punto de integración
 - **Integra**, en una o varias fases del estudio, estos dos tipos de datos y/o las inferencias resultantes de su análisis e interpretación con el fin de obtener un **valor añadido** respecto a los diseños monométodo
- ZONAS GRISES DE LA DEFINICIÓN**

 - Encuestas compuestas por preguntas abiertas y cerradas
 - Entrevistas semiestructuradas con un instrumento cuantitativo
 - Estudios con una única fuente de datos CUAN o CUAL convertida al otro tipo (*quantitizing / qualitizing*)

Creswell & Plano Clark (2018), Johnson et al (2007), Tashakkori & Creswell (2007)

CRECIMIENTO DE MM EN DISCIPLINAS

- Todas las revisiones apuntan a un crecimiento del número de estudios empíricos basados en MM, especialmente desde 2003, año de publicación de la primera edición del *Handbook*

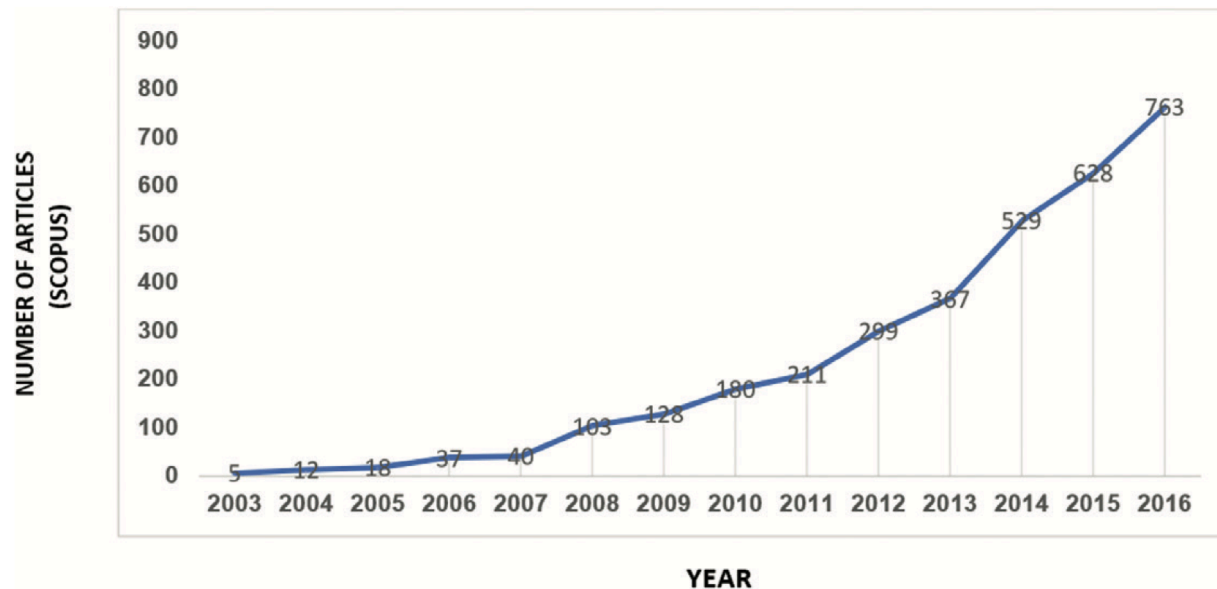


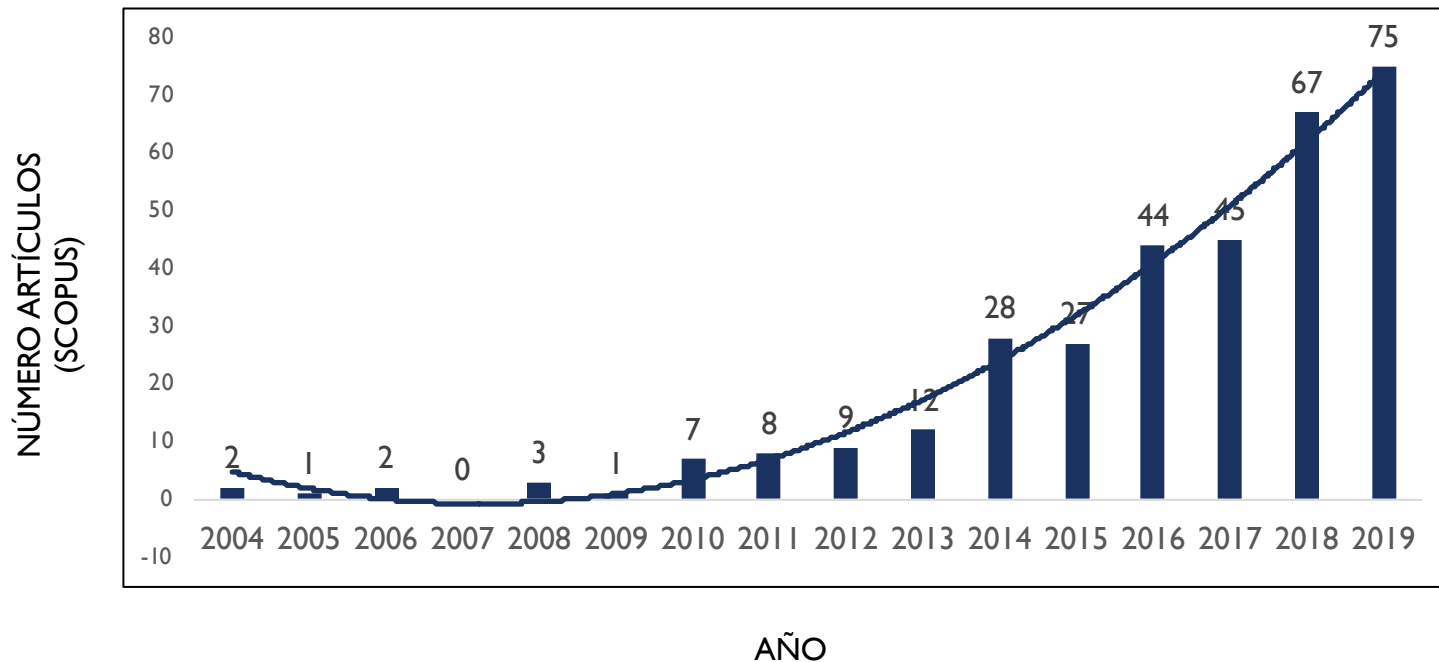
Figure 1. This graph shows that the trend of use of MM in health sciences was generated using following search strategy: TITLE ('mixed methods' OR 'mixed method') AND DOCTYPE (ar) AND PUBYEAR > 2002 AND PUBYEAR < 2017 AND (LIMIT-TO (DOCTYPE, 'ar')) AND (LIMIT-TO (SUBJAREA, 'MEDI') OR LIMIT-TO (SUBJAREA, 'SOCI') OR LIMIT-TO (SUBJAREA, 'PSYC') OR LIMIT-TO (SUBJAREA, 'NURS') OR LIMIT-TO (SUBJAREA, 'ARTS') OR LIMIT-TO (SUBJAREA, 'HEAL') OR LIMIT-TO (SUBJAREA, 'DECI')) AND (LIMIT-TO (LANGUAGE, 'English')) AND (LIMIT-TO (SRCTYPE, 'j')). The 2003 benchmark was chosen because it was the year of the publication of the first edition of the SAGE handbook on MM (27)

USO DE MM EN MÚLTIPLES DISCIPLINAS

- Pueden encontrarse estudios basados en MM en casi todas las **disciplinas** de las ciencias sociales, del comportamiento y de la salud
- Estudios de **prevalencia** – Revisiones sobre la prevalencia, las características y la calidad de estudios MM en varios campos:
 - Salud: Wisdom et al (2012), Brown et al (2015), Fryer et al (2017), Sahin & Naylor (2017), De Allegri (2018), Younas et al (2019)
 - Educación: Hart et al (2009), Rapanta & Felton (2019)
 - Psicología: Powell et al (2008), Bartholomew & Lockard (2018)
 - Administración y políticas públicas: Hendren et al (2018), Mele & Belardinelli (2018)
 - Management y turismo: Molina-Azorin (2011), Molina-Azorin & Font (2015), van der Roest et al (2015)
 - Ciencias de la información: Fidel (2008), Granikov et al (2020)

CRECIMIENTO DE MM EN ESPAÑOL

- El número de referencias que incluyen el término *métodos mixtos* en español ha crecido exponencialmente a lo largo de los últimos años, pero el número total de trabajos publicados es todavía reducido



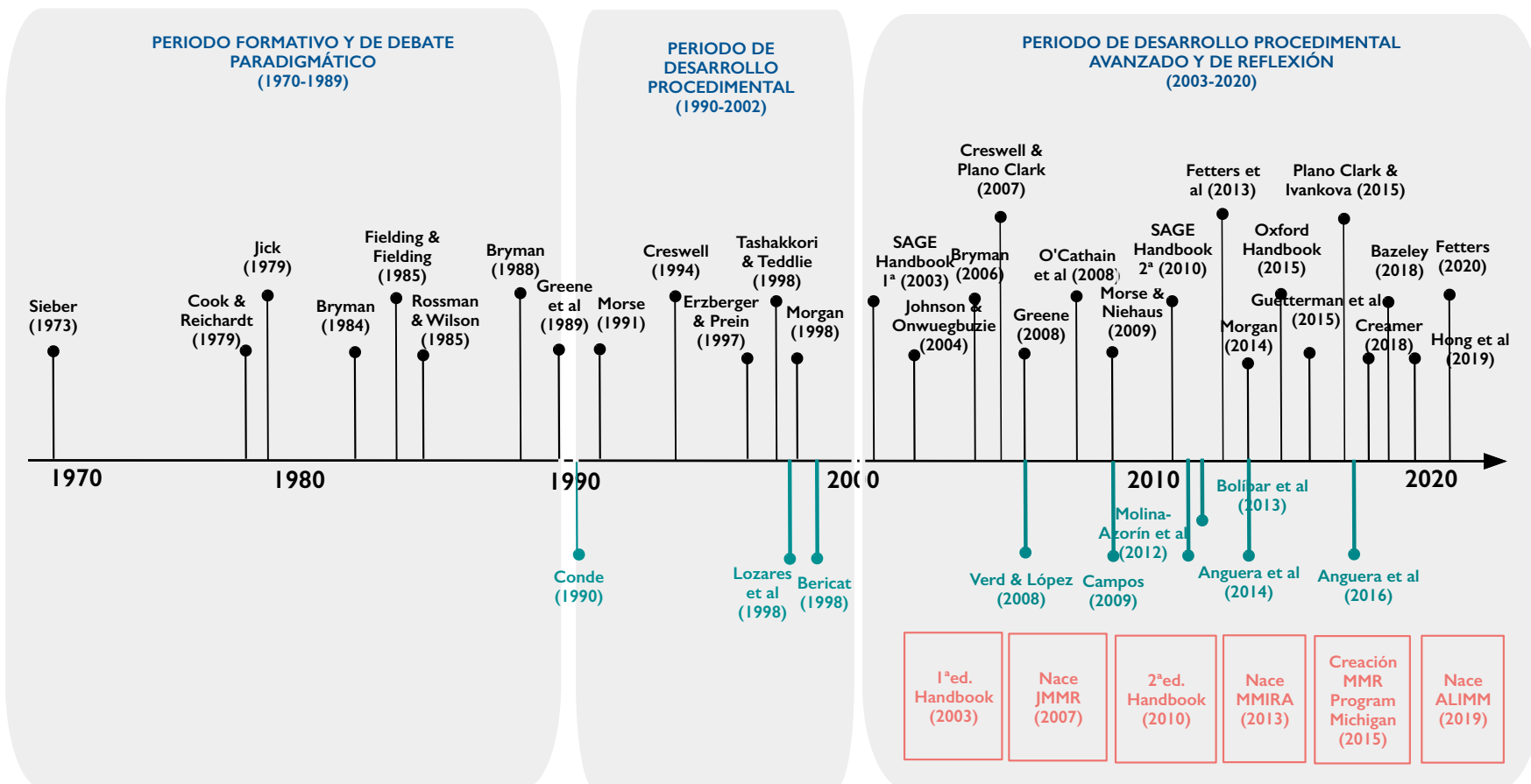
(TITLE-ABS-KEY ("Mixed method*")) AND (AFFILCOUNTRY ("Spain" OR "Mexico" OR "Costa Rica" OR "El Salvador" OR "Guatemala" OR "Honduras" OR "Nicaragua" OR "Panama" OR "Cuba" OR "Dominican Republic" OR "Argentina" OR "Bolivia" OR "Chile" OR "Colombia" OR "Ecuador" OR "Paraguay" OR "Puerto Rico" OR "Peru" OR "Uruguay" OR "Venezuela")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "Spanish"))

DESARROLLO HISTÓRICO DE LOS MM

- Hay varios momentos clave del desarrollo histórico de MM:
 - **Período formativo y de debate paradigmático (1970-1989)**
 - Se rompe con la defensa de la incompatibilidad entre paradigmas y los autores defienden la independencia entre epistemología y métodos
 - **Período de desarrollo procedimental (1990-2002)**
 - Se publican las primeras indicaciones procedimentales como las justificaciones para el uso de MM y las tipologías de diseños MM
 - **Período desarrollo procedimental avanzado y reflexión (2003-2020)**
 - Se publica la primera edición del Handbook (2003)
 - Se avanza en el desarrollo de los procedimientos MM, en temas como el muestreo o la calidad
 - Nace el *Journal of Mixed Methods Research* (2007)
 - Se consolida el campo con la creación de la MMIRA (2013)
 - Nacen las primeras redes

Creswell & Plano Clark (2018)

DESARROLLO HISTÓRICO DE LOS MM



Periodos adaptados de Creswell y Plano Clark (2011)

PERIODO

OBRAS CLAVE

OBRAS EN ESPAÑOL

MOMENTOS CLAVE



2. JUSTIFICACIONES PARA EL USO DE MM

¿PARA QUÉ USAR MM?

- 1) COMPLEMENTARIEDAD
 - Examinar un fenómeno desde distintas perspectivas
 - Evaluar resultados y procesos en intervenciones complejas
 - Examinar distintos niveles de un sistema
 - Usar resultados CUAL para explicar resultados CUAN
- 2) DESARROLLO
 - Usar los resultados CUAL para informar la recogida de datos CUAN
 - Usar los resultados CUAN para informar el muestreo CUAL
- 3) TRIANGULACIÓN
 - Validar los resultados de ambos componentes a partir de la revisión de sus puntos de convergencia y divergencia

Un mismo estudio MM puede tener más de una justificación

Plano Clark & Ivankova (2018)

I) COMPLEMENTARIEDAD

- Determinar cuantitativamente tendencias del fenómeno de estudio y explorar, cualitativamente, detalles de dichas tendencias

Anabel Quan-Haase

UNIVERSITY STUDENTS' LOCAL AND DISTANT SOCIAL TIES

Using and integrating modes of communication on campus

The use of the Internet has increased dramatically in recent years, with university students becoming one of the most dominant user groups. This study investigated how the Internet is integrated into university students' communication habits. The authors focused on how online (email and instant messaging) and mobile (cellphones and texting) modes of communication are used in the context of offline modes (FTF and telephone) to support students' local and distant social ties. Using a mixed methods approach that combined survey data from 268 Canadian university students with focus group data, a rich description was obtained of what modes of communication students use, how they integrate them to fulfill communication needs, and the implications of this integration for the maintenance of social ties. It was found that friends were the most important communication partners in students' everyday lives. Regardless of the type of social tie, instant messaging was used the most for communication. Because of their high cost, the cellphone and texting were used less. Increased distance between communication partners reduced communication — local communication was more frequent for both friends and relatives. While instant messaging and email were used less for contact with those faraway, the decrease was not as sharp as with in-person and telephone contact. In particular, instant messaging was used extensively for distant contact with friends — often daily. While online modes were used widely for local communication, it was evident that they also filled communication gaps with those faraway. Because they were inexpensive and readily available on campus, email and instant messaging were highly used by students and they facilitated a close integration of far-flung ties into university students' everyday lives.

Keywords Computer-mediated communication; online communication; Internet; university students; social ties; instant messaging; email; cellphone; distance; communication patterns



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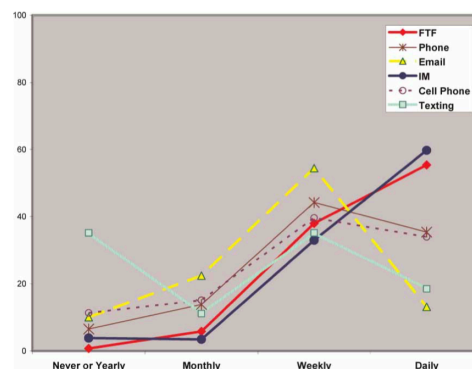


FIGURE 1 Students' use of communication modes with friends nearby.

Pretty much everybody who I always had on my list is still there. But I talk to maybe like 10 on a daily basis. It's one of the things that keeps me in contact with the outside world, especially living in residence ... so MSN is like your way of communicating with other people, and also keeping in contact with people who moved away to different universities and then people back home.

I have a cellphone and minutes during the day are expensive so if I want to talk to my friends about getting together in the evening and it's during the day, I will definitely message them and say: 'Call me after 8'. So it's pretty convenient to use IM because it's free.

- Se realizó una encuesta para investigar la frecuencia y las formas de comunicación por Internet de los participantes y se organizaron grupos de discusión para investigar detalles de la información anterior, tales como las ventajas y desventajas de cada forma de comunicación y el modo como encajan dichas formas con otros hábitos de su vida cotidiana

I) COMPLEMENTARIEDAD

- En evaluaciones de intervenciones complejas, combinar la evaluación cuantitativa de la eficacia y factibilidad de la intervención con la evaluación cualitativa de la implementación y aceptabilidad de la intervención



Original Article

End-of-Life Conversation Game Increases Confidence for Having End-of-Life Conversations for Chaplains-in-Training

Lauren Jodi Van Scoy, MD¹, Elizabeth Watson-Martin, MDiv²,
Tiffany A. Bohr, BS³, Benjamin H. Levi, MD, PhD⁴, and
Michael J. Green, MD¹

Abstract

Context: Discussing end-of-life issues with patients is an essential role for chaplains. Few tools are available to help chaplains-in-training develop end-of-life communication skills. **Objective:** This study aimed to determine whether playing an end-of-life conversation game increases the confidence for chaplain-in-trainings to discuss end-of-life issues with patients. **Methods:** We used a convergent mixed methods design. Chaplains-in-training played the end-of-life conversation game twice over 2 weeks. For each game, pre- and postgame questionnaires measured confidence discussing end-of-life issues with patients and emotional affect. Between games, chaplains-in-training discussed end-of-life issues with an inpatient. One week after game 2, chaplains-in-training were individually interviewed. Quantitative data were analyzed using descriptive statistics and Wilcoxon rank-sum tests. Content analysis identified interview themes. Quantitative and qualitative data sets were then integrated using a joint display. **Results:** Twenty-three chaplains-in-training (52% female; 87% Caucasian; 70% were in year 1 of training) completed the study. Confidence scores (scale: 15-75; 75 = very confident) increased significantly after each game, increasing by 10.0 points from pregame 1 to postgame 2 ($P < .001$). Positive affect subscale scores also increased significantly after each game, and shyness subscale scores decreased significantly after each game. Content analysis found that chaplains-in-training found the game to be a positive, useful experience and reported that playing twice was beneficial (not redundant). **Conclusion:** Mixed methods analysis suggest that an end-of-life conversation game is a useful tool that can increase chaplain-in-trainings' confidence for initiating end-of-life discussions with patients. A larger sample size is needed to confirm these findings.

Keywords

end-of-life conversations, pastoral care, communication, palliative care, terminal care, health games

Introduction

Many professional guidelines recognize that compassionate and candid communication about end-of-life issues is a critical element of patient-centered care.¹⁻³ Although both patients and families frequently rate communication as a key feature of high-quality patient care,^{4,9} they also consistently report dissatisfaction with clinician communication.^{4,10,11} These deficiencies are particularly problematic in high-stakes, end-of-life situations where communication is especially critical.^{4,10} When communication is suboptimal, patients and families experience increased anxiety, depression, and dissatisfaction with care.¹²⁻¹⁹

Even when clinicians do engage patients in conversations about values, goals, and beliefs related to death, dying, or medical decision-making, studies show that the spiritual and emotional needs of patients are often inadequately addressed by clinicians.²⁰ Accordingly, there is a role and need for chaplains to provide bedside assistance with regard to end-of-life issues as evidenced by a study that found that hospital

chaplains provided service to 80% of patients who died in the intensive care unit.²¹

Despite this key role, there is substantial variability in the way chaplain training programs teach end-of-life communication, and there is little consensus about how best to prepare them for this important role.²² Clinical pastoral education

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Table 4. Conversation Assessments, Confidence, and Emotional Affect.

Measurement	Game 1 (N = 23)			Game 2 (N = 23)		
	Premedian (IQR)	Post median (IQR)	Change P Value ^a	Premedian (IQR)	Postmedian (IQR)	Change P Value ^a
Conversation satisfaction (scale: 1-7, 7 = very satisfied)	N/A	6.3 (3.6)				
Conversation realism (scale: 1-7, 7 = very realistic)	N/A	5.6 (1.6)				
Confidence (scale: 15-75, 75 = most confident)	51.0 (14.0)	56.8 (9.0)				
Emotional affect (PANAS-X questionnaire)						
Positive affect score (scale: 10-50, 50 = very positive)	30.0 (11.0)	36.6 (13.0)				
Negative affect score (scale: 10-50, 50 = very negative)	12.0 (4.0)	10.0 (2.0)				
Fear subscale (scale: 6-30, 30 = self-assured subscale (scale self-assured))						
Shyness subscale (scale: 4-20, 20 = self-assured)						

Table 5. Quotations From Qualitative Semi-Structured Interviews.

Theme	Subtheme	Quotes
1) The conversation game was a positive experience and useful tool.	1A) The conversation game was an empowering and confidence-building activity.	Participant 16: If you want me to have these conversations... I need to be empowered and the game did take me to that place of feeling like, "Oh I can handle this. I can listen to people's stories. I can ask these sorts of questions." So that was good. Participant 14: I thought it was a good exercise. Session 1 was especially good because I left it with me. "Well that's not hard. It's not really hard to ask people questions."
2) The conversation game was a positive experience and useful tool.	2A) The conversation game was an empowering and confidence-building activity.	Participant 16: If you want me to have these conversations... I need to be empowered and the game did take me to that place of feeling like, "Oh I can handle this. I can listen to people's stories. I can ask these sorts of questions." So that was good. Participant 14: I thought it was a good exercise. Session 1 was especially good because I left it with me. "Well that's not hard. It's not really hard to ask people questions."
3) The conversation game was a positive experience and useful tool.	3A) The conversation game was an empowering and confidence-building activity.	Participant 16: If you want me to have these conversations... I need to be empowered and the game did take me to that place of feeling like, "Oh I can handle this. I can listen to people's stories. I can ask these sorts of questions." So that was good. Participant 14: I thought it was a good exercise. Session 1 was especially good because I left it with me. "Well that's not hard. It's not really hard to ask people questions."

Table 6. Joint Display.

Construct	Quantitative Results	Qualitative Results	Convergence or Divergence of Data sets
Evidence supporting conversation game as a means to increase confidence having end-of-life conversations	Increased confidence scores Decreased shyness Increased self-assurance Reduced fear	Trainees reported game conversations to be empowering and gave them increased confidence (theme 1; subthemes 1A/1B)	Convergence
Evidence supporting game as a useful educational tool	95% of trainees would recommend tool to others High conversation satisfaction and realism scores Improved positive affect Reduced negative affect	Trainees reported the conversation game to be a useful educational tool (theme 2)	Convergence

- Se evaluó cuantitativamente la eficacia de la intervención (incremento de la confianza) y se exploraron cualitativamente las opiniones de los participantes acerca de la intervención. Se examinó la convergencia/divergencia entre ambos tipos de datos

I) COMPLEMENTARIEDAD

- Examinar varios niveles de un sistema, por ejemplo, en organizaciones o instituciones: aproximación multinivel a los MM

Bergenholtz et al. BMC Palliative Care (2015) 14:23
DOI 10.1186/s12904-015-0022-2



RESEARCH ARTICLE

Open Access

Organization and evaluation of generalist palliative care in a Danish hospital

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Abstract

Background: Hospitals have a responsibility to ensure that palliative care is provided to all patients with life-threatening illnesses. Generalist palliative care should therefore be acknowledged and organized as a part of the clinical tasks. However, little is known about the organization and evaluation of generalist palliative care in hospitals. Therefore the aim of the study was to investigate the organization and evaluation of generalist palliative care in a large regional hospital by comparing results from existing evaluations.

Methods: Results from three different data sets, all aiming to evaluate generalist palliative care, were compared retrospectively. The data-sets derived from: 1. a national accreditation of the hospital, 2. a national survey and 3. an internal self-evaluation performed in the hospital. The data were triangulated to investigate the organization and evaluation of palliative care in order to identify concordances and/or discrepancies.

Results: The triangulation indicated poor validity of the results from existing methods used to evaluate palliative care in hospitals. When the datasets were compared, several discrepancies occurred with regard to the organization and the performance of generalist palliative care. Five types of discrepancies were found in 35 out of 56 sections in the fulfilment of the national accreditation standard for palliative care. Responses from the hospital management and the department managements indicated that generalist palliative care was organized locally – if at all – within the various departments and with no overall structure or policy.

Conclusions: This study demonstrates weaknesses in the existing evaluation methods for generalist palliative care and highlights the lack of an overall policy, organization and goals for the provision of palliative care in the hospital. More research is needed to focus on the organization of palliative care and to establish indicators for high quality palliative care provided by the hospital. The lack of valid indicators, both for the hospital's and the departments' provision of palliative care, calls for more qualitative insight in the clinical staff's daily work including their culture and acceptance of the provision of palliative care.

Keywords: Palliative care, Generalist palliative care, Hospital, Organization, Evaluation, Accreditation

Background

During the last decade it has been emphasized that palliative care is relevant for all life-threatening diseases – not only cancer [1]. According to WHO, palliative care need to be a priority across the healthcare sector and must be established through an overall policy to ensure its structure and financing at all levels [1,2]. At the policy level, this seems to be well accepted [3,4]. In several countries, including Denmark, palliative care is organized at two levels: 1. generalist palliative care and 2. specialist

palliative care [3,5]. Generalist palliative care is defined as care provided to those affected by life-threatening diseases as an integral part of standard clinical practice by any healthcare professional who is not part of a specialist palliative care team. So, in hospitals, generalist palliative care refers to the care provided by professionals working in non-palliative departments, while specialist palliative care refers to care provided by palliative units [3]. In many countries approximately half of all deaths occur in hospitals [6,7], and in western countries up to 75% of people die from chronic progressive diseases [1]. Hospitals therefore have a significant responsibility to offer and initiate palliative care, and from a quantitative perspective, most

Table 3 Discrepancies in the departments/sections evaluations of Standard 2.19.1 were identified

Sections N = 35	Hospital's self-evaluation Departments' self evaluation/Standard met?	Internal audit ¹	PAVI-survey Providing palliative care	Instructions/ guidelines for palliative care ²	IKAS-d Accred stand.
Unit 1 Medical	Fully	NC	Yes	No	
Unit 1 Medical	Fully	NA	Yes	No	
Unit 1 Medical	Fully	NA	Yes	No	
Unit 1 Medical	Fully	NA	Yes	No	
Unit 1 Medical	Fully	NA	Yes	No	
Unit 1 Medical	Fully	NA	Yes	No	
Unit 1 Medical	Partially	RA	Yes	No	
Unit 1 Medical	Partially	NA	Yes	Yes	
Unit 2 Medical	Partially	NA	Yes	Yes	
Unit 2 Medical	Not met	NC	Yes	Yes	
Unit 2 Medical	Partially		Yes	Yes	
Unit 2 Medical	Partially		Yes	Yes	
Unit 3 Medical	Partially	RA + P	Yes	Yes	
Unit 1 Oncology	Fully	RA	Yes	Yes	Indicat 2 were all the

1. IKAS¹ national accreditation procedure – data from the hospital
Period: 16-20 June 2011
Participants: Entire hospital
Methods: Interviews, observation, and checking of patient records performed by 7 external surveyors from IKAS (doctors and nurses), according to IKAS' evaluation principles
Standard: 2.19.1 for palliative care was 'met in full' at the level of Indicator 2**
Results: No information could be provided regarding the basis for the IKAS surveyors' conclusion for the hospital in the accreditation procedure

2. National Survey by PAVI³ – data from the hospital
Period: December 2011 - March 2012
Participants: The hospital's management (N=1) and the departments' managers (N=29)
Methods: Questionnaire. 4 themes concerning the structure and organisation of general palliative care (PC): 1. Policy for and focus on PC. 2. Allocation of resources to PC. 3. Instructions/guidelines for PC. 4. Registration of PC.
Results: The response rate was 100%. The answers are shown in Table 1

3. Hospital's internal evaluation
3.1. Departments' self-evaluation of Standard 2.19.1
3.2. Internal audit of the Standard's implementation

Period: 1st quarter 2012

3.1. Self-evaluation performed by the departments' own 'key quality staff'
Participants: 56 sections from 23 departments
Methods: Each department had key quality staff to register in a database (called TAK and provided to the hospital by IKAS) whether Standard 2.19.1 was 'met in full' or 'partially met' at the level of Indicator 2 by each section
Results: 41 sections (18 departments) met the guideline 'in full'; 11 sections (7 departments) met it 'partially'. In 1 section it was 'not met', and in 3 sections, the Standard was found 'not relevant'. (The results are shown in Table 2)

3.2. Internal audit by the region's survey corps, performed independently from Part 3.1
Participants: 17 sections from 13 departments
Methods: A survey corps interviewed the staff and checked patient records to see if Standard 2.19.1 was implemented according to the requirements described in DDKM*
Results: 10 sections (9 departments) received comments: 6 had 'positive' comments, and 7 had comments that 'attention was required'. Both types of comments could be used in the same section.
Comments: It was not possible to obtain information on the number of interviews, or how many patient records the survey corps had checked

*IKAS: The Danish Institute for Quality and Accreditation in Healthcare is responsible for the accreditation of Danish hospitals according to DDKM (The Danish Quality Model)

** Indicator 1: The institution has guidelines for palliative care, and Indicator 2: Leaders and members of staff are familiar with the guidelines and use them

³PAVI: The Knowledge Centre for Rehabilitation and Palliative Care (in Denmark)

Figure 1 The three datasets used for triangulation.

- Se usaron varias fuentes de datos, CUAN y CUAL, para examinar diferentes niveles de la organización de un hospital. Se compararon las discrepancias entre dichas fuentes

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I) COMPLEMENTARIEDAD

- Usar los resultados cualitativos para explicar o refinar resultados obtenidos en una primera fase cuantitativa, los cuales han quedado poco claros

Downloaded from <http://spcare.bmj.com/> on July 23, 2017 - Published by group.bmj.com

Suitable support for anxious hospice patients: what do nurses 'know', 'do' and 'need'? An explanatory mixed method study

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ABSTRACT

Objective To provide insight into what nurses know, do and need to provide support to anxious patients in hospice care (HC).

Methods A mixed method study consisted of an online survey and focus groups (FGs) about what nurses know, do, and need was conducted. 336 HC nurses were invited to participate. Descriptive statistics were computed using SPSS. The 8th and t-tests were conducted to compare. The FGs were transcribed verbatim and thematically analysed.

Results The survey was completed by 265 nurses (79%), and five FGs (n=25) were conducted. Most nurses had >10 years working experience; mean age was 52. The majority (59%) felt that they were equipped with sufficient knowledge; however, lack of knowledge (31%) as well as lack of time (50%) were hampering factors. Identification of anxiety was difficult due to the variety of its expression. Tools for identifying were used by 37%. Interventions were generally chosen intuitively. A major responsibility was experienced in caring for patients with panic attacks during late night shifts, making immediate decisions necessary.

Conclusion This study highlights the struggles of nurses caring for anxious patients in HC. Anxiety management is dependent on the competencies and preferences of the individual nurse. One-third of the nurses require additional training. According to HC nurses, the intervention set should include guidelines for applying assessment tools, effective communication strategies and decision models as well as prediction models in order to select tailored interventions. Future research should focus on patients' perspectives in order to understand crucial measures for anxiety management.

INTRODUCTION

In the last 2 weeks before death, at least 30% of patients with advanced cancer suffer from anxiety.¹ Anxiety can be classified on the basis of underlying aetiology,

such as situational, organic, existential and psychiatric anxiety, and can have cognitive, emotional and behavioural components.² Anxiety can affect patients' decision making, exacerbate other symptoms and can be a threat to the patients' quality of life.³⁻⁵ Therefore, interventions for symptom management and self-care strategies are necessary.⁶ Psychosocial and psychopharmacological treatment for the prevention or alleviation of anxiety as well as ongoing monitoring and evaluation using validated measurement tools are recommended.⁷

The management of anxiety requires an interdisciplinary team approach. Nurses, who are generally a common stable factor within this interdisciplinary team, are ideally situated to identify anxiety because of their day-to-day observations.⁸ In addition, the lack of regular access to mental health professionals in hospice care (HC) highlights the need for nurses to take on this responsibility.⁸ While the review of Traeger *et al*⁹ identified important issues, there is a lack of understanding as to which role and responsibilities oncology and palliative care nurses have in the management of anxiety.⁹

A common misconception among nurses is the assumption that anxiety represents nothing more than an understandable reaction to having an incurable illness and that nothing can be done about it.¹⁰ Furthermore, assessment of anxiety on a regular basis is lacking.¹¹ Both can result in an underidentification of anxiety. It is important to identify anxiety because anxiety adds to patients' suffering on physical, psychosocial and spiritual well-being levels. As far as we know, no previous studies

Table 2 Differences between nurses

		With missing items (n=92)	Without missing items (n=173)	p Value	Statement correct	Statement incorrect
Mean age (SD)		53.2 (6.4)	50.9 (8.3)	p=0.01 ¹	1) 49.6 (7.6) 2) 51.4 (8.1)	1) 52.2 (8.2) 2) 50.6 (7.9)
Education	Community college	38 (35.5%)	69 (64.5%)	p=0.77 ²	1) 37 (41.1%) 2) 57 (63.3%)	1) 53 (58.9%) 2) 33 (36.7%)
	Bachelor degree	51 (34.9%)	95 (65.1%)		1) 55 (45.1%) 2) 75 (77.3%)	1) 67 (54.9%) 2) 47 (44.7%)
	Master degree	3 (25%)	9 (75%)		1) 9 (75%) 2) 10 (83.3%)	1) 3 (25%) 2) 2 (16.7%)
Nursing school	RNa	44 (34.1%)	85 (65.9%)	p=0.03 ²	1) 45 (42.1%) 2) 70 (65.4%)	1) 62 (57.9%) 2) 37 (34.6%)
	RN with bachelor degree	17 (24.6%)	52 (75.4%)		1) 35 (55.6%) 2) 37 (58.7%)	1) 28 (44.4%) 2) 26 (41.3%)
	Other	31 (46.3%)	36 (53.7%)		1) 21 (38.9%) 2) 35 (64.8%)	1) 33 (61.1%) 2) 19 (35.2%)
Mean working hours a week (SD)		19.7 (8.6)	21.0 (7.7)	p=0.20 ¹	1) 21.1 (8.1) 2) 20.0 (8.3)	1) 20.2 (7.5) 2) 21.7 (6.9)
Working experience in hospice care	0-5 years	28 (32.2%)	59 (67.8%)	p=0.73 ²	1) 35 (46.1%) 2) 49 (64.5%)	1) 41 (53.9%) 2) 27 (35.5%)
	5-10 years	25 (33.8%)	49 (66.2%)		1) 32 (50%) 2) 42 (65.6%)	1) 32 (50%) 2) 22 (34.4%)
	>10 years	39 (37.5%)	65 (62.5%)		1) 34 (40.5%) 2) 51 (60.7%)	1) 50 (59.5%) 2) 33 (36.6%)

RN, registered nurse.

*Independent t-test.

† χ^2 test.

1): statement 1; 2): statement 2.

Box 1 Nurse 3C, 57 years old

Nurse 3C (57 years old): 'Yes, for many symptoms, such as pain or nausea, it's usually clear what to do according to the guidelines, but this is not the case for anxiety. There are many influencing factors to consider, such as where the fear is coming from but also the personality of the patient, or even the personality of the nurse. It's not as clear cut as with giving medication for nausea or pain.'

Box 5 Nurse 12, 44 years old

Nurse 12 (44 years old): '...Well, I think you bring yourself with you and you have to trust yourself that when there is an acute situation you will act automatically. It is really important to be calm caring for those patients... For example, you have to be completely accessible, have an open mind, and should not think about your issues in your own family or about Ms. Jansen, the patient next door. When you have an open mind, you can keep calm and think clearly about what is needed. You are an instrument in yourself as well.'

- Los resultados de los grupos de discusión realizados con enfermeras, en una segunda fase, permitieron explicar los resultados de la encuesta, realizada en una primera fase, sobre las práctica de dichas enfermeras para la gestión de la ansiedad en su trabajo



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2) DESARROLLO

- Usar los resultados de una primera fase exploratoria CUAL, de un fenómeno del que se tiene poco conocimiento, para definir la recogida de datos o el análisis CUAN llevado a cabo en la fase siguiente

Empirical Research

Perceptions and Receptivity of Nonspousal Family Support: A Mixed Methods Study of Psychological Distress Among Older, Church-Going African American Men

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SAGE

Daphne C. Watkins¹, Tracy Wharton², Jamie A. Mitchell¹, Niki Matusko¹, and Helen C. Kales¹

Abstract

The purpose of this study was to explore the role of nonspousal family support on mental health among older, church-going African American men. The mixed methods objective was to employ a design that used existing qualitative and quantitative data to explore the interpretive context within which social and cultural experiences occur. Qualitative data ($n = 21$) were used to build a conceptual model that was tested using quantitative data ($n = 401$). Confirmatory factor analysis indicated an inverse association between nonspousal family support and distress. The comparative fit index, Tucker-Lewis fit index, and root mean square error of approximation indicated good model fit. This study offers unique methodological approaches to using existing, complementary data sources to understand the health of African American men.

Keywords

African American men, church, nonspousal family support, mental health outcomes, mixed methods

As the popularity of mixed methods continues to grow, more disciplines are beginning to expand on how mixed methods research can be used to achieve discipline-specific research goals and objectives (Curry & Nunez-Smith, 2015; Haight & Bidwell, 2015; Watkins & Gioia, 2015). The distinct characteristics and utility of mixed methods research in providing depth and breadth of a research topic are attractive to both novice and seasoned scholars. First, mixed methods involve the collection and analysis of qualitative and quantitative data in ways that are rigorous and

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Table 3. Churches Study Qualitative Themes and Subthemes for Nonspousal Family Support.

Themes	Subthemes
1. African American men have a distress management "process."	<ul style="list-style-type: none"> Siblings, children, and other
2. Nonspousal family members are a part of the distress management "process" used by African American men.	<ul style="list-style-type: none"> African American men often reach out to family who go to them with their men African American men feel members regarding their mental health needs
3. African American men expect assistance and support from their nonspousal family members.	<ul style="list-style-type: none"> African American men's far feel connected to family members African American men's far their mental health needs

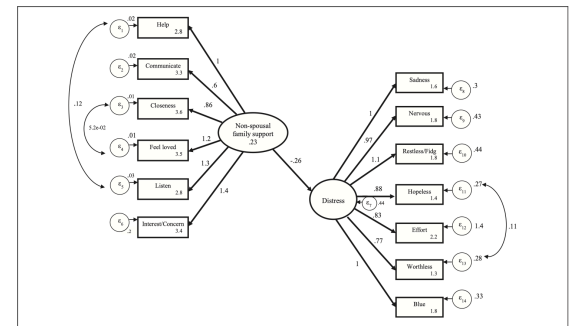


Figure 2. Confirmatory factor analysis model fit for nonspousal family support and psychological distress.

- Los resultados de los grupos de discusión realizados con hombres y mujeres afroamericanos/as, en una primera fase, sirvieron para determinar las variables examinadas en la fase siguiente de análisis cuantitativo de datos secundarios (National Survey of American Life)

2) DESARROLLO

■ Usar resultados CUAN para definir el muestreo de una segunda fase CUAL

Research in Higher Education, Vol. 48, No. 1, February 2007 (© 2006)
DOI: 10.1007/s1162-006-9025-4

STUDENTS' PERSISTENCE IN A DISTRIBUTED DOCTORAL PROGRAM IN EDUCATIONAL LEADERSHIP IN HIGHER EDUCATION: A Mixed Methods Study

Nataliya V. Ivankova*† and Sheldon L. Stick**

The purpose of this mixed methods sequential explanatory study was to identify factors contributing to students' persistence in the University of Nebraska-Lincoln Distributed Doctoral Program in Educational Leadership in Higher Education by obtaining quantitative results from surveying 278 current and former students and then following up with four purposefully selected typical respondents to explore those results in more depth. In the first, quantitative, phase, five external and internal to the program factors were found to be predictors to students' persistence in the program: "program", "online learning environment", "student support services", "faculty", and "self-motivation". In the qualitative follow up multiple case study analysis four major themes emerged: (1) quality of academic experiences; (2) online learning environment; (3) support and assistance; and (4) student self-motivation. The quantitative and qualitative findings from the two phases of the study are discussed with reference to prior research. Implications and recommendations for policy makers are provided.

KEY WORDS: persistence; doctoral students; distributed program; online learning environment.

INTRODUCTION

Graduate education is a major part of American higher education, with more than 1850 million students enrolled in graduate programs (NCES, 2002). Approximately one fifth are graduate students pursuing doctoral

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TABLE 3. Standardized Canonical Discriminant Function Coefficients

	Function		
	1	2	3
Program	1.187	0.458	0.187
Online learning environment	-0.078	0.588	0.065
Faculty	0.187	0.425	-0.608
Self-motivation	0.224	-0.427	0.176
Student support services	-0.341	0.209	0.016
Employment	0.116	0.635	0.151
Virtual community	0.105	0.786	0.163
Academic advisor	-0.180	-0.129	1.076
Family	0.103	-0.080	0.455

TABLE 6. Themes, Sub-Themes, and Categories Across Cases

Themes, Sub-Themes	Gwen	Lorie	Larry	Susan
Quality University		Distance education	Research one	
Program	Well-structured Relevant Scholarly Learning from others Challenging	Well-structured Relevant Scholarly Learning from others Challenging	Well-structured Relevant Scholarly Learning from others	
		Broad content		

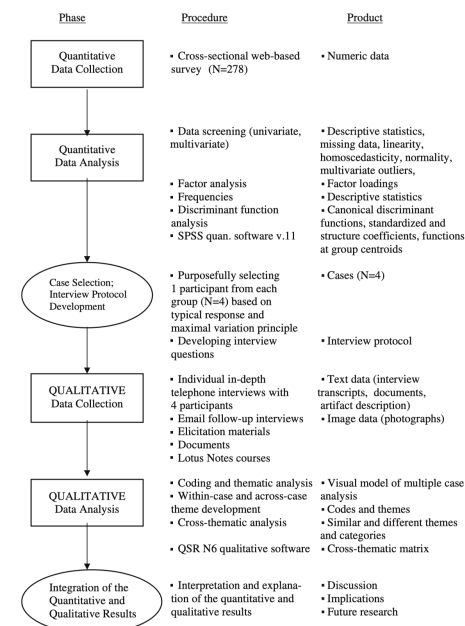


FIG. 1. Visual model for mixed methods sequential explanatory design procedures.

- Los resultados de una encuesta con estudiantes, realizada en una primera fase, se usaron como soporte para la determinación de los participantes de la segunda fase CUAL, en base a un muestreo de máxima heterogeneidad

3) TRIANGULACIÓN

■ Fortalecer los resultados obtenidos con ambos métodos

Clinical decision-making at the end of life: a mixed-methods study

Paul Taylor,^{1,2} Miriam J Johnson,³ Dawn Wendy Dowding⁴

ABSTRACT

Objectives To improve the ability of clinical staff to recognise end of life in hospital inpatients dying as a result of cancer and heart failure, and to generate new hypotheses for further research.

Methods This mixed-methods study used decision theory as a theoretical basis. It involved a parallel databases-convergent design, incorporating findings from previously published research, with equal priority to study groups and synthesis by triangulation. The individual arms were (1) a retrospective cohort study of 102 patients with cancer and 81 patients with heart failure in an acute trust in the North of England, and (2) a semistructured interview study of 19 healthcare professionals caring for the same patient groups.

Results The synthesis of findings demonstrated areas of agreement, partial agreement, silence and dissonance when comparing the cohort findings with the interview findings. Trajectories of change are identified as associated with poor prognosis in both approaches, but based on different parameters. Management of patients has a significant impact on decision-making. The decision process requires repeated, iterative assessments and may benefit from a multidisciplinary approach. Uncertainty is a defining characteristic of the overall process, and objective parameters only have a limited role in predicting end of life.

Conclusions The role of uncertainty is important as a trigger for discussions and a defined stage in a patient's illness journey. This is consistent with current approaches to recognising irreversible deterioration in those with serious illness. This study contributes ongoing evidence that these concepts are vital for decision-making.

BACKGROUND

The implementation of good care of the dying depends on the recognition that a person is in their final days.¹ Timely recognition of dying allows appropriate implementation of symptom measures, while minimising unnecessary invasive and costly

interventions.² In the USA, appropriate recognition of end-stage disease allows hospice care to be delivered *via* benefits comparable with Medicare (public health insurance for the over-65s), with consequent improvement in symptom control and quality of life.³ From the earliest days of medical practice,⁴ to the preferences of patients and their families,⁵ through to recent recommendations on palliative care research topics,⁶ the recognition of dying features as a vital topic.

Despite the centrality of this skill to palliative care, the key findings from primary research continue to reinforce that the task is challenging, with recent national guidance recommending research into the recognition of dying as a priority.⁷ A simple single-question tool, the 'surprise question', remains one of the leading techniques for recognising the last 6 months to a year of life,⁸ yet demonstrates a wide variation in accuracy when applied to different contexts, patient populations, timescales or by different professionals.⁹ Ongoing research approaches include using case vignettes to model the accuracy of a clinician's decisions,¹⁰ using audit data to explore the timing of the decision,¹¹ using routine data to model the biology of dying,¹² using prognostic methods at a short timescale¹³ and using qualitative methods to explore decision processes.¹⁴ An integrative review of the literature has reinforced the inherent difficulty and uncertainty in this process, and the breadth of research techniques with which it can be explored.⁷

Theories of clinical decision-making provide a framework for understanding these processes. While a number of models exist, they can largely be understood as fitting into one of three categories: normative, prescriptive or descriptive.¹⁵ Normative models use mathematical and probabilistic techniques to outline an idealised decision. Prescriptive models produce tools to enable practitioners to translate normative, 'idealised' decisions into

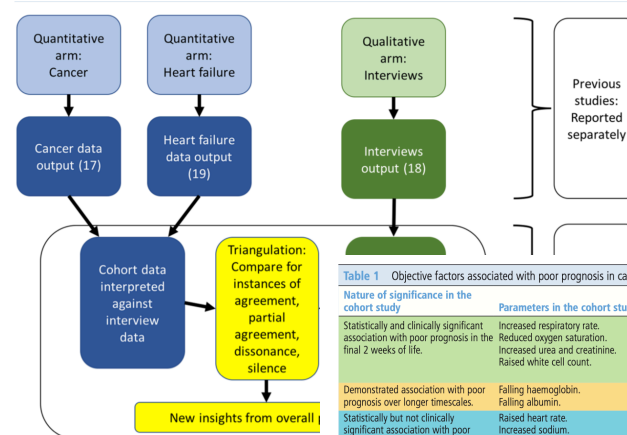


Figure 1 Overall structure of the study.

Table 1 Objective factors associated with poor prognosis in cancer

Nature of significance in the cohort study	Parameters in the cohort study	Description in the interview study, under the theme 'Sought information'
Statistically and clinically significant association with poor prognosis in the final 2 weeks of life.	Increased respiratory rate. Reduced oxygen saturation. Increased urea and creatinine. Raised white cell count.	Increased respiratory rate. Breathlessness. Increased urea and creatinine. Renal function. Raised white cell count.
Demonstrated association with poor prognosis over longer timescales.	Falling haemoglobin. Falling albumin.	Haemoglobin. Albumin.
Statistically but not clinically significant association with poor prognosis.	Raised heart rate. Increased sodium.	Not described in this population.
Others.	Not sought or obtained in this population.	Temperature. Early warning score. Chest drain output. Imaging. C reactive protein. Blood cultures. ECG.
No evidence of association.	Blood pressure. Falling heart rate.	Performance status ↓. Weight ↓. Confusion. Nausea/vomiting ↓. Urine output. Analgesic use ↑.
		Bradycardia.

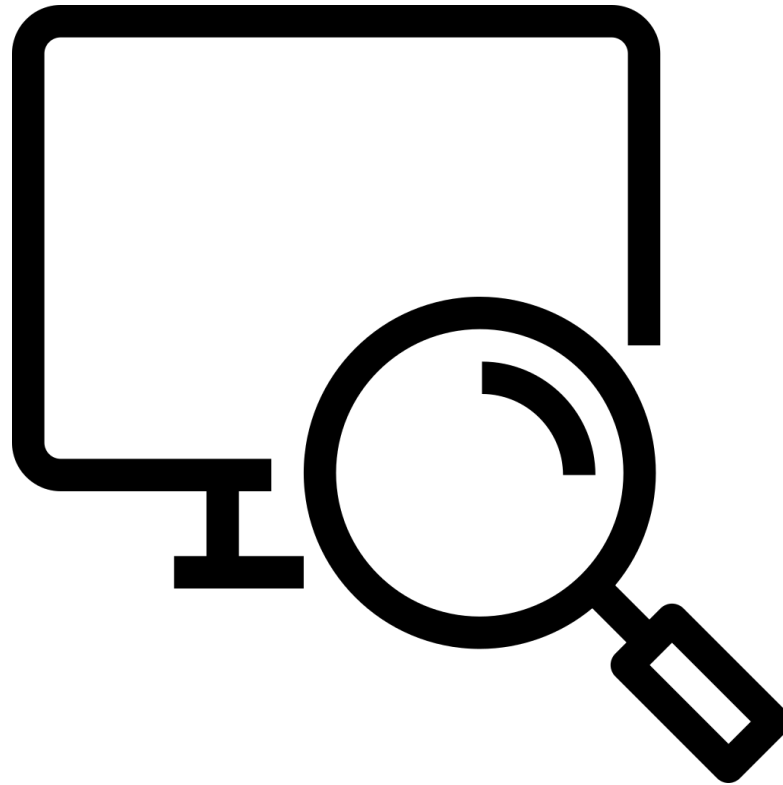
Green, full agreement; yellow, partial agreement; blue, silence (where a finding is identified in only one study); red, dissonance (where study findings contradict one another).

- Los resultados de las diferentes fuentes de datos CUAN y CUAL se compararon con el fin de identificar las áreas de acuerdo completo, de acuerdo parcial, de disonancia y de contradicción. Dicha comparación permitió reforzar los resultados de los dos componentes



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3. DISEÑOS MM

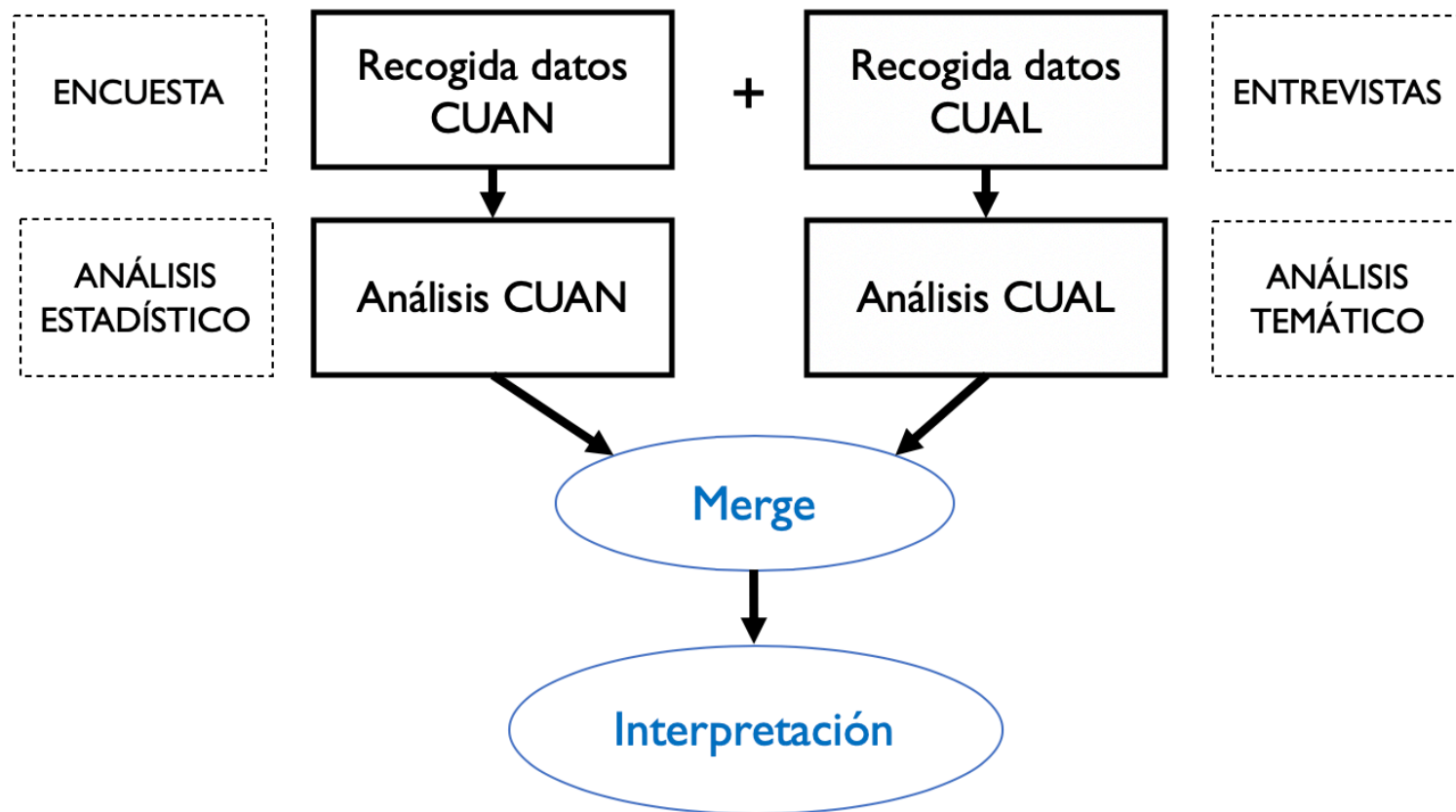
EJES DE LOS DISEÑOS MM

- 1) PROPÓSITO DE LA COMBINACIÓN
 - Justificación y razones que llevan a la integración de dos componentes CUAN y CUAL
- 2) TEMPORALIDAD
 - Secuencialidad de los componentes: si se implementan al mismo tiempo o uno tiene lugar antes del otro
- 3) PUNTO DE INTEGRACIÓN
 - Etapa de la investigación en que se lleva a cabo la integración de los componentes
- 4) TIPO DE INTEGRACIÓN
 - Merging (fusión), Building (construcción), Connecting (conexión)

DISEÑOS BÁSICOS

- Creswell & Plano Clark (2018) los clasifican en:
 - 1) DISEÑO CONVERGENTE
 - 2) DISEÑO SECUENCIAL EXPLORATORIO
 - 3) DISEÑO SECUENCIAL EXPLICATIVO

I) DISEÑO CONVERGENTE



PROPÓSITO: Complementariedad
TEMPORALIDAD: Paralela
PUNTO INTEGRACIÓN: Interpretación / Análisis
TIPO INTEGRACIÓN: Merging

I) DISEÑO CONVERGENTE

ORIGINAL RESEARCH

Population-based health promotion perspective for older driver safety: Conceptual framework to intervention plan

Sherrilene Classen^{1,2}
Ellen DS Lopez³
Sandra Winter²
Kezia D Awadzi⁴
Nita Ferree⁵
Cynthia W Garvan⁶

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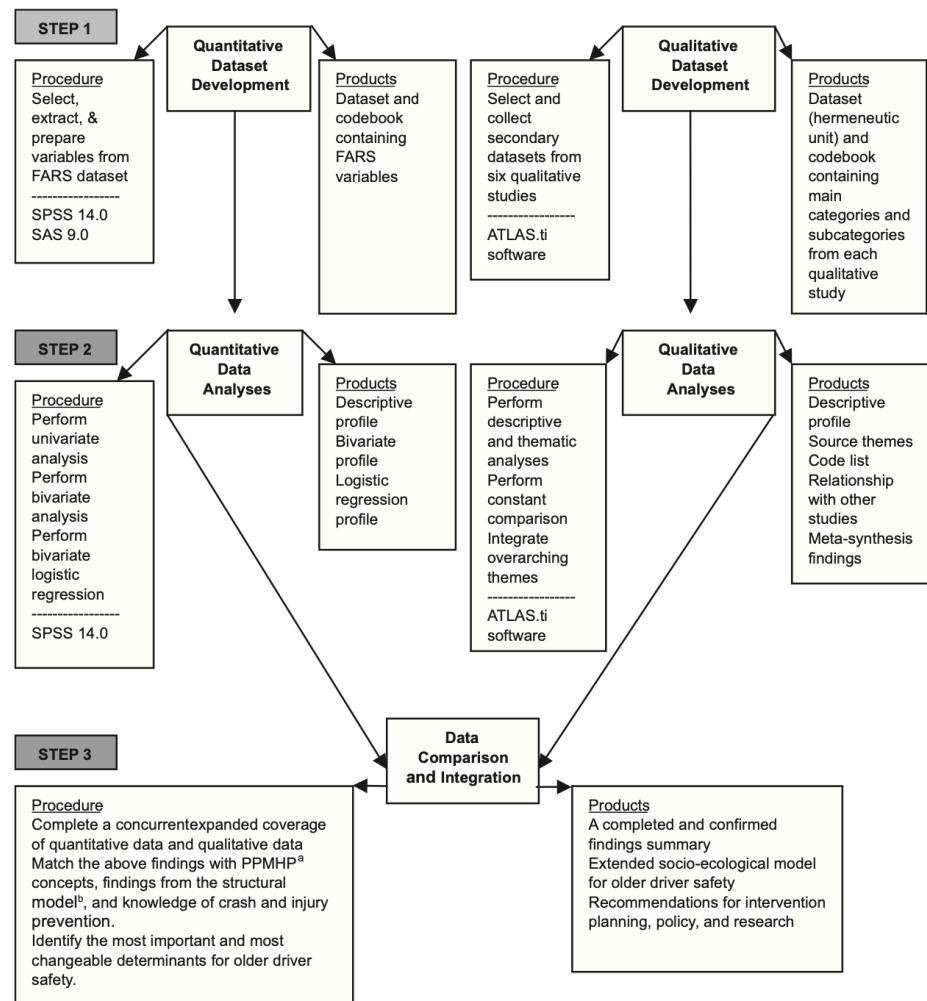
Abstract: The topic of motor vehicle crashes among the elderly is dynamic and multi-faceted requiring a comprehensive and synergistic approach to intervention planning. This approach must be based on the values of a given population as well as health statistics and asserted through community, organizational and policy strategies. An integrated summary of the predictors (quantitative research), and views (qualitative research) of the older drivers and their stakeholders, does not currently exist. This study provided an explicit socio-ecological view explaining the interrelation of possible causative factors, an integrated summary of these causative factors, and empirical guidelines for developing public health interventions to promote older driver safety. Using a mixed methods approach, we were able to compare and integrate main findings from a national crash dataset with perspectives of stakeholders. We identified 11 multi-causal factors for safe elderly driving, the importance of the environmental factors - previously underrated in the literature- interacting with behavioral and health factors; and the interrelatedness among many socio-ecological factors. For the first time, to our knowledge, we conceptualized the fundamental elements of a multi-causal health promotion plan, with measurable intermediate and long-term outcomes. After completing the detailed plan we will test the effectiveness of this intervention on multiple levels.

Keywords: safe elderly driving, mixed-method approach, public health model, intervention plan, health promotion

Background Older driver safety

As our population ages, older driver safety increasingly evokes public health concern. Statistics show that in 2001, the 27.5 million licensed drivers age 65 and older in the US experienced, based on miles driven, higher rates of fatal crashes than most other groups (NHTSA 2001) with nearly 7,500 older adults dying in motor vehicle crashes. The next year, an estimated 220,000 suffered nonfatal injuries, with rates being twice as high for men as for women (CDC 2004a, 2004b). By 2020, it is estimated that more than 40 million older adults will be licensed drivers (Dellinger et al 2002). By 2030, people age 65 and older are expected to represent 25 percent of the driving population and 25 percent of fatal crash involvement (IIHS 2003). The 76+ age group is especially at an increased risk for motor vehicle crashes due to underlying frailty and fragility, medical conditions, medications, and functional impairments (McGwin et al 2000; Langford et al 2006).

Factors contributing to unsafe driving (Williams and Ferguson 2002; Charlton et al 2006; Classen, Shectman et al 2006; Langford and Koppel 2006) include those at different socio-ecological levels. These include vehicle factors (eg, poor driver vehicle fit) (AOTA 2004), environmental factors (eg, absence of protected left turn

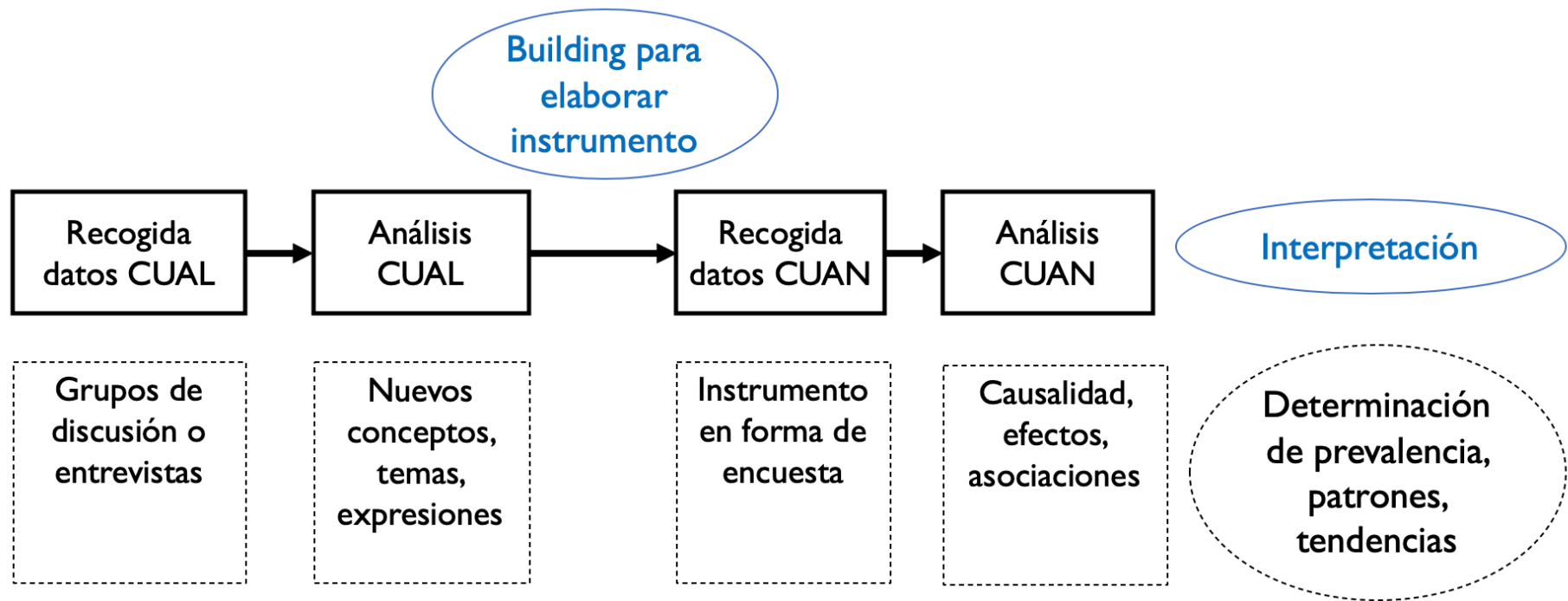


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2) DISEÑO SECUENCIAL EXPLORATORIO



PROPÓSITO: Desarrollo / Complementariedad

TEMPORALIDAD: Secuencial

PUNTO INTEGRACIÓN: Recogida datos / Interpretación

TIPO INTEGRACIÓN: Building / Merging

2) DISEÑO SECUENCIAL EXPLORATORIO

Empirical Research

Perceptions and Receptivity of Nonspousal Family Support: A Mixed Methods Study of Psychological Distress Among Older, Church-Going African American Men

Daphne C. Watkins¹, Tracy Wharton², Jamie A. Mitchell¹, Niki Matusko¹, and Helen C. Kales¹

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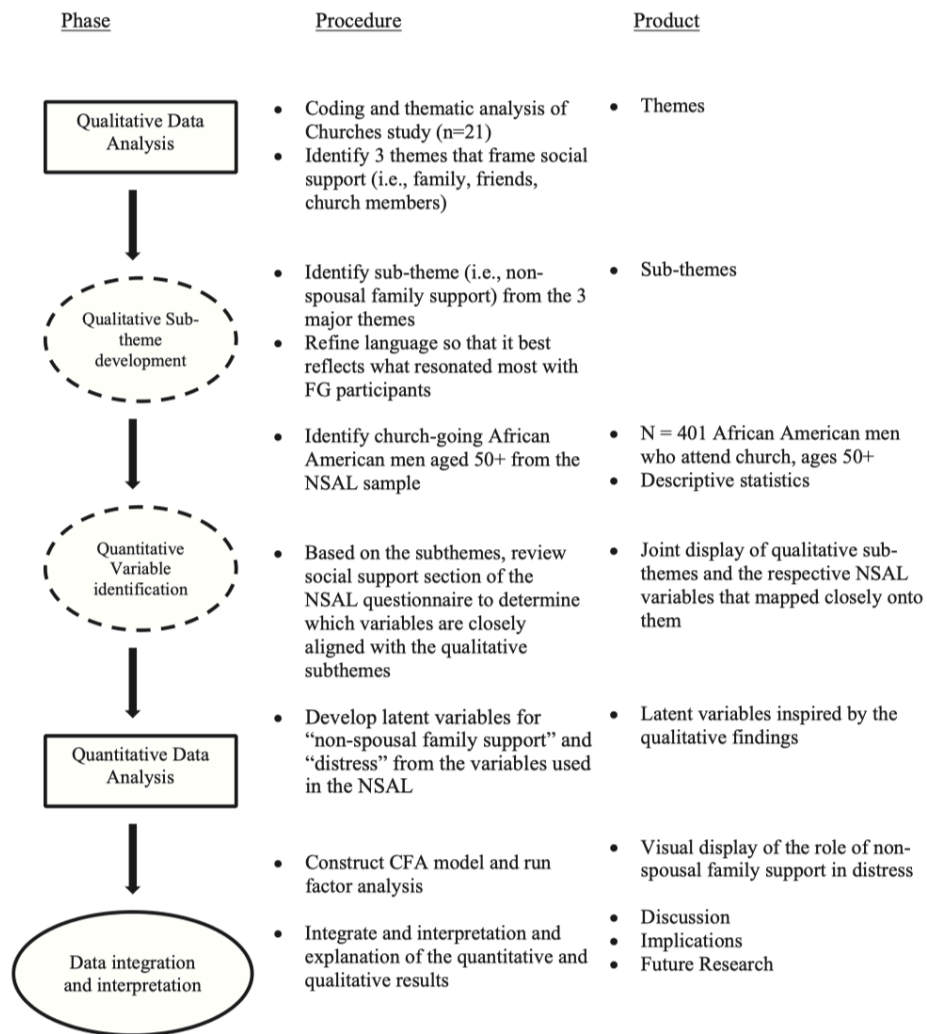
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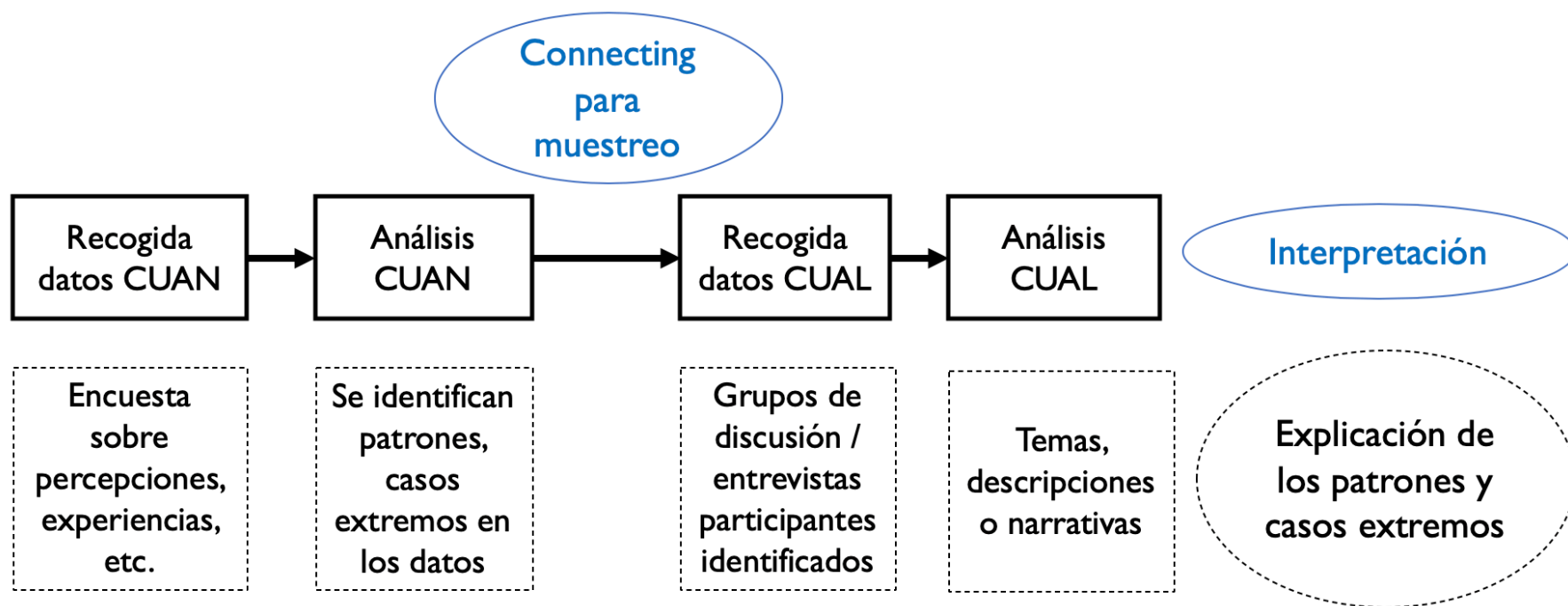
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3) DISEÑO SECUENCIAL EXPLICATIVO



PROPÓSITO: Desarrollo / Complementariedad

TEMPORALIDAD: Secuencial

PUNTO INTEGRACIÓN: Recogida datos / Interpretación

TIPO INTEGRACIÓN: Connecting / Building / Merging

3) DISEÑO SECUENCIAL EXPLICATIVO

Empirical Research

Implementing Integration in an Explanatory Sequential Mixed Methods Study of Belief Bias About Climate Change With High School Students

Matthew T. McCrudden¹ and Erin M. McTigue²

Abstract

Integration in mixed methods involves bringing together quantitative and qualitative approaches. There is a need for practical examples of how to integrate the two approaches in an explanatory sequential design at the methods level and at the interpretation and reporting level. This article reports an explanatory sequential mixed methods study of adolescents' quantitative judgments about belief-related scientific arguments and qualitative reasons behind those judgements via interviews. This context is used to illustrate how integration can be achieved in an explanatory sequential design at the *methods* level, through the sampling frame and through the development of the interview protocol with a methodological joint display, and at the *interpretation and reporting* level through narrative and the use of a results joint display.

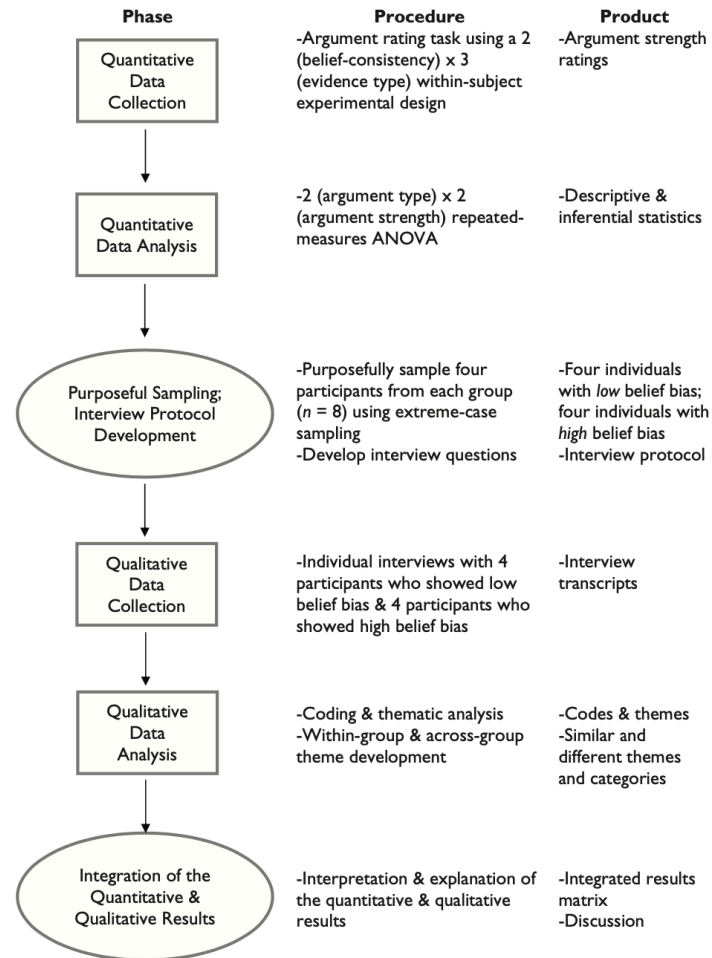
Keywords

integration, explanatory sequential mixed methods, multilevel mixed design, joint display, belief bias

Explicitly defining a mixed methods design can help researchers plan a study and orient readers either to what was done in a study (e.g., journal reviewers, article readers) or will be done in a study (e.g., funding bodies, doctoral committee; Creswell, Plano Clark, Gutmann, & Hanson, 2003). Importantly, from a researcher's perspective, generating a sound research question that is aligned with the methods can enable the researcher to make several key decisions about how to plan and implement a mixed methods study design. A crucial feature of this process is understanding when and how to integrate the quantitative and qualitative approaches.

Integration in mixed methods research involves intentionally bringing together quantitative and qualitative approaches such that their combination leads to greater understanding of the topic (Bryman, 2006; Caracelli & Greene, 1997; Creamer, 2018; Fetters, Curry, & Creswell, 2013; Greene, 2007; O'Cathain, Murphy, & Nicholl, 2007, 2010; Yin, 2006). Given the

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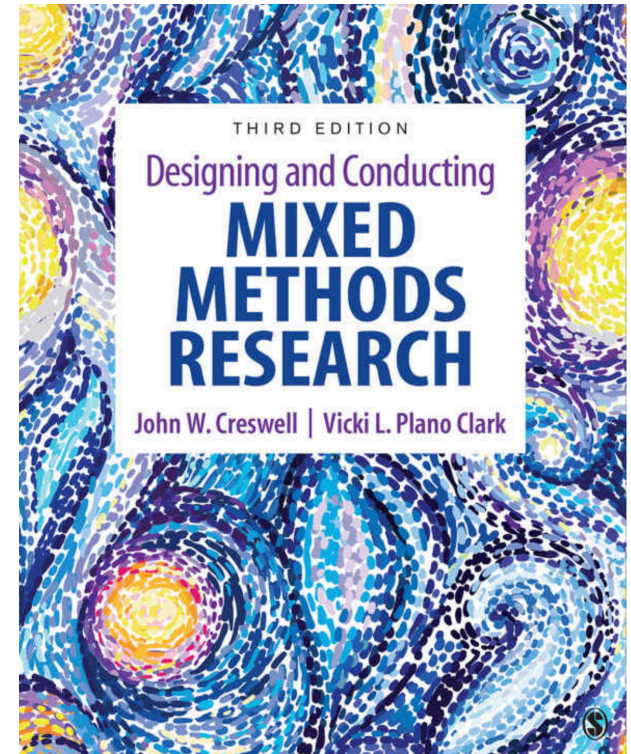
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DISEÑOS AVANZADOS

Creswell & Plano Clark (2018) los clasifican en:

- Diseños mixtos experimentales
Mixed Methods Experimental Intervention Design
- Diseño mixto de estudio de caso
Mixed Methods Case Study Design
- Diseño mixto participativo y de justicia social
Mixed Methods Participatory-Social Justice Design
- Diseño mixto de evaluación de programas
Mixed Methods Program Evaluation Design



DISEÑOS AVANZADOS

- Creamer & Schoonenboom (2018) introducen el concepto de *inter-method mixing* para hacer referencia a combinaciones de MM con:

- Fenomenografía
- Estudio de caso
- Grounded Theory
- Métodos visuales
- Action Research
- Elementos artísticos

Introduction

Inter-Method Mixing as a Gateway to Methodological Innovation

American Behavioral Scientist
2018, Vol. 62(7) 879–886
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DOI: 10.1177/0002764218756917
journals.sagepub.com/home/abs
SAGE

Elizabeth G. Creamer¹ and Judith Schoonenboom² 

Abstract

We advance the idea that with the commitment to the intentional engagement of multiple sources of data or analytical procedures to explore complex problems as its core defining feature, the field of mixed methods may now be at a point that we can consider it as an inquiry logic that has the potential to spawn the construction of new methodologies. The special issue invites further conversation that builds on the challenge of mixing at the methodological level.

Keywords

inter-method mixing, methodological mixing

Those of us who have enjoyed the luxury of years spent being immersed in the methodological literature are long familiar with the debate about whether mixed methods constitute a distinctive methodology. Greene opened the discussion about this very question in two publications (Greene, 2007, 2008). Leaders in the field have defined mixed methods research as both a method and a methodology that “involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches at many phases of the research process” (Creswell & Plano Clark, 2011, p. 5). Deeply embedded in this definition is the conviction that benefits accrue from being intentional about integrating qualitative and quantitative data, collection techniques, sampling strategies, analytical procedures, and/or inferences. Multilevel mixing is envisioned as having the potential to push the envelope by leveraging integration of paradigms, theory, conceptual models,

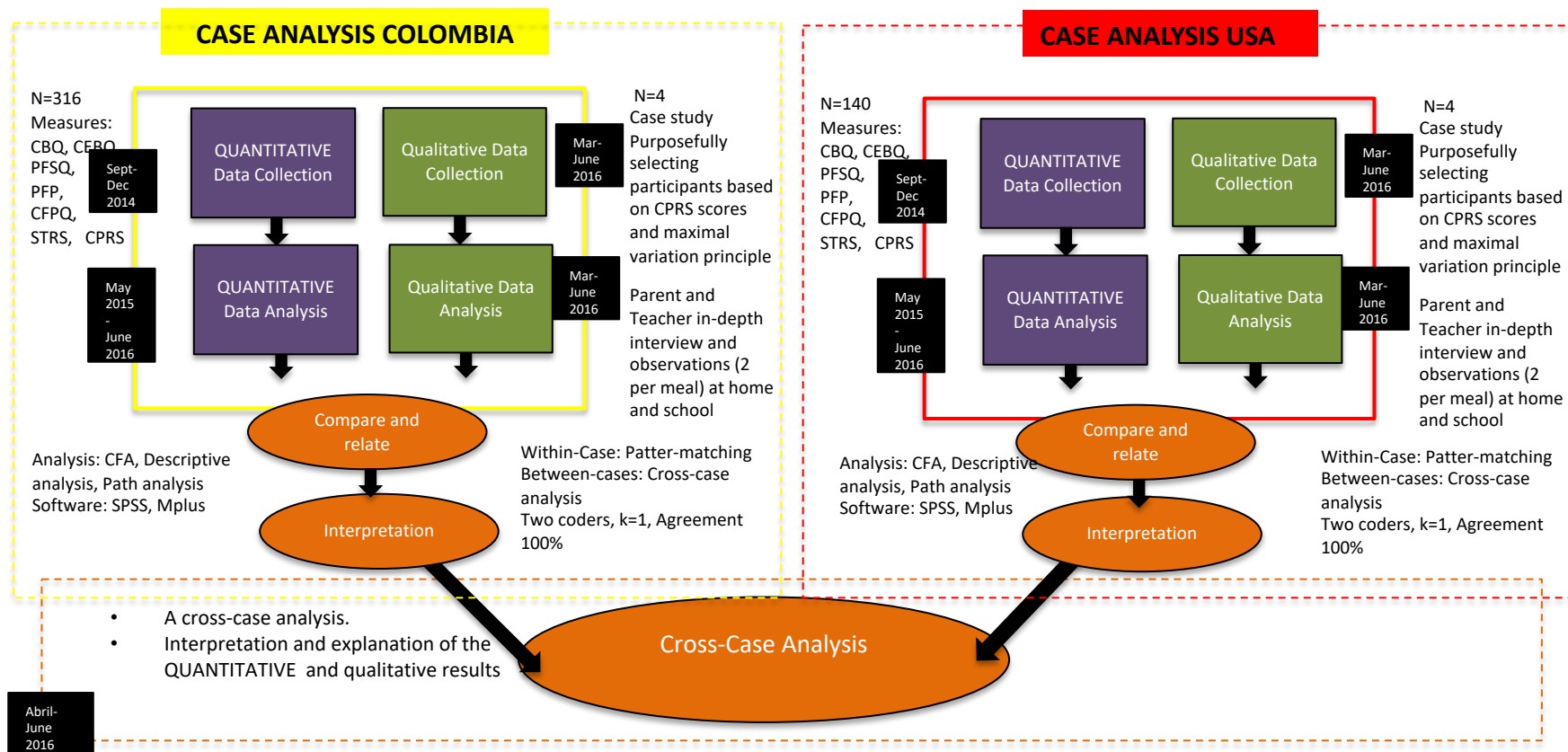
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DISEÑOS AVANZADOS: MM ESTUDIO DE CASO MÚLTIPLE



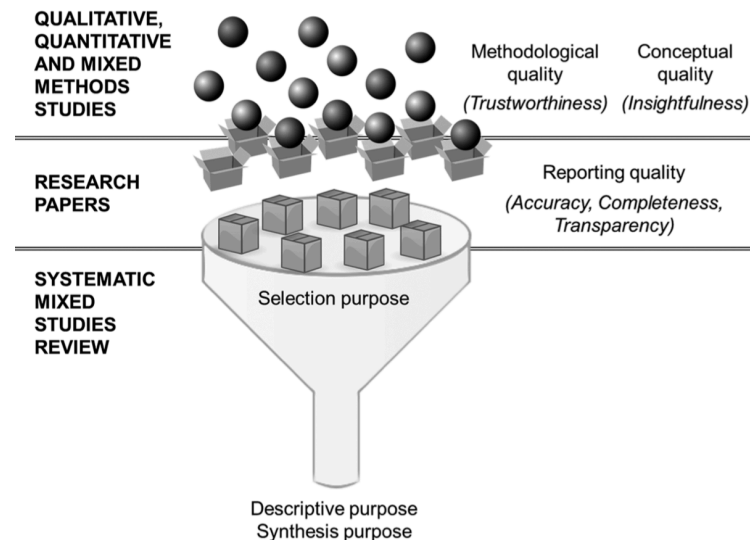
La autora combina el diseño convergente con un diseño cualitativo de estudio de casos múltiples entre contextos culturales (Estados Unidos y Colombia) (Escalante, 2016)



4. CALIDAD METODOLÓGICA Y DE REPORTE DE LOS MM

TIPOS DE CALIDAD EN INVESTIGACIÓN

- Es importante distinguir entre la calidad metodológica (rigor en la conducción del estudio) y la calidad de reporte (transparencia, precisión y completitud de presentación)
- Es posible que un estudio tenga alta calidad metodológica (esté bien hecho) pero baja calidad de reporte (esté mal reportado)
- Es importante tener claro qué estamos evaluando y seleccionar el marco de evaluación más adecuado de acuerdo con el tipo de calidad que queremos evaluar

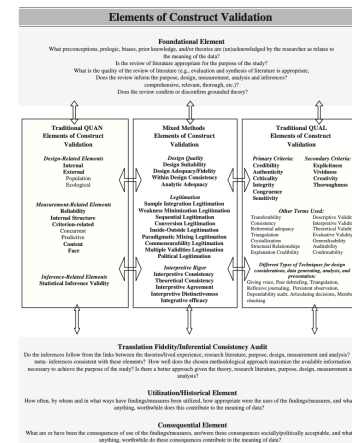


Hong & Pluye (2019)

CRITERIOS EVALUACIÓN CALIDAD METODOLÓGICA MM

- Sale & Brazil (2004)
- Onwuegbuzie & Johnson (2006)
- Dellinger & Leech (2007)
- Bryman et al (2008)
- Teddlie & Tashakkori (2009)
- O'Cathain (2010)
- Onwuegbuzie & Poth (2016)
- Fabregues & Molina-Azorín (2017)
- NIH (2018)
- Hong et al (2019)

Figure 2
Validation Framework: Elements of Construct Validation



Stage of Study	Domains of Quality	Items Within Domain	Definition
Planning	Planning quality	Foundational element	Comprehensive literature
		Rationale transparency	Qual Quant DOI:10.1007/11135-016-0449-4
		Planning transparency	
Undertaking	Design quality	Feasibility	Addressing quality in mixed methods research: a review and recommendations for a future agenda Sergi Fabregues ¹ · José F. Molina-Azorín ²
		Design suitability	
		Design strength	
		Design rigor	

© Springer Science+Business Media Dordrecht 2016

Abstract Quality is one of the most debated topics in the recent history of mixed methods research. A growing number of authors are currently discussing how the quality of mixed methods research should be conceptualised and operationalised, with the ultimate aim of promoting well designed and properly implemented mixed methods studies. These authors argue that mixed methods research has a number of unique features with respect to monomethod research and, as such, should be appraised according to its own set of quality criteria. Based on a systematic search of the literature, this review (1) examines the features and trends of the literature on the quality of mixed methods research published until February 2016; (2) provides a metasummary of the most prevalent quality criteria suggested in this literature; and (3) proposes a number of recommendations for future discussion and research on this topic. The review concludes that (1) publications on the quality of mixed methods research are increasingly more prevalent and elaborated; (2) a shared set of core quality criteria for appraising mixed methods research can be identified across publications; and (3) future work on this topic should focus on increasing the number of empirical publications on quality, achieving greater consistency in quality terminology, and reaching an agreement on core quality criteria.

Keywords Mixed methods research · Quality issues · Quality criteria · Review

EVALUACIÓN CALIDAD METODOLÓGICA MM: MIXED METHODS APPRAISAL TOOL



Journal of Clinical Epidemiology xx (2019) 49–59

Journal of
Clinical
Epidemiology

ORIGINAL ARTICLE

Improving the content validity of the mixed methods appraisal tool: a modified e-Delphi study

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Abstract

Objective: The mixed methods appraisal tool (MMAT) was developed for critically appraising different study designs. This study aimed to improve the content validity of three of the five categories of studies in the MMAT by identifying relevant methodological criteria for appraising the quality of qualitative, survey, and mixed methods studies.

Study Design and Setting: First, we performed a literature review to identify critical appraisal tools and extract methodological criteria. Second, we conducted a two-round modified e-Delphi technique. We asked three method-specific panels of experts to rate the relevance of each criterion on a five-point Likert scale.

Results: A total of 383 criteria were extracted from 18 critical appraisal tools and a literature review on the quality of mixed methods studies, and 60 were retained. In the first and second rounds of the e-Delphi, 73 and 56 experts participated, respectively. Consensus was reached for six qualitative criteria, eight survey criteria, and seven mixed methods criteria. These results led to modifications of eight of the 11 MMAT (version 2011) criteria. Specifically, we reformulated two criteria, replaced four, and removed two. Moreover, we added six new criteria.

Conclusion: Results of this study led to improve the content validity of this tool, revise it, and propose a new version (MMAT version 2018). © 2019 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: Quality appraisal; Delphi technique; Systematic review; Qualitative research; Surveys; Mixed methods research

1. Introduction

Conflict of interest statement: Quan Nha Hong, OT, MSc, PhD. This manuscript was written while she was a PhD candidate and held a Doctoral Fellowship Award from the Canadian Institutes of Health Research (CIHR). Pierre Pluye, MD, PhD, Full Professor, holds a Senior Investigator Award from the Fonds de recherche en santé Québec (FRSQ) and is the Director of the Methodological Development Platform of the Québec-SpOR SUPPORT Unit, which is funded by the CIHR, the FRSQ, and the Québec Ministry of Health.

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Systematic reviews are considered among the best available sources of research evidence and are increasingly relied on to inform decision-making [1]. The past 40 years have seen increasingly rapid methodological advances in the field of systematic reviews and research synthesis. Initial developments mainly focused on meta-analysis for addressing questions on the effectiveness of interventions, and the emphasis was on randomized controlled trials [2–3]. Since the early 2000s, researchers have shown a growing interest in systematic mixed studies reviews,

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions? S2. Do the collected data allow to address the research questions? <i>Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.</i>				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question? 1.2. Are the qualitative data collection methods adequate to address the research question? 1.3. Are the findings adequately derived from the data? 1.4. Is the interpretation of results sufficiently substantiated by data? 1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed? 2.2. Are the groups comparable at baseline? 2.3. Are there complete outcome data? 2.4. Are outcome assessors blinded to the intervention provided? 2.5. Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population? 3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)? 3.3. Are there complete outcome data? 3.4. Are the confounders accounted for in the design and analysis? 3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question? 4.2. Is the sample representative of the target population? 4.3. Are the measurements appropriate? 4.4. Is the risk of nonresponse bias low? 4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question? 5.2. Are the different components of the study effectively integrated to answer the research question? 5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? 5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed? 5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

- Hiramienta para la evaluación de la calidad metodológica de estudios mixtos
http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/fetch/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf

CRITERIOS EVALUACIÓN CALIDAD DE REPORTE MM

- Creswell & Tashakkori (2007) – Editorial JMMR
- O’Cathain et al (2008) – GRAMMS (Good Reporting of a Mixed Methods Study)
- Mertens (2012) – Editorial JMMR
- Fetters & Freshwater (2015) – Editorial JMMR
- APA - Mixed Methods Article Reporting Standards (MMARS) (2020)

Editorial

Developing Publishable Mixed Methods Manuscripts

With an increasing interest in mixed methods research, an issue of considerable importance has emerged: How do authors report these studies effectively and in publishable form? Although there are some general guidelines for writing manuscripts (e.g., Creswell & Plano Clark, 2007; Sandelowski, 2003), little formal information is available that constitutes a round, favoring methods. As also es in the scope set with parallel (p. 292). When merous requests may be used as (to write manu-1 and evaluation

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Methods Research
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April 2007 107-111
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http://online.sagepub.com

Editorial

Publishing Mixed Methods Research

Journal of Mixed Methods Research
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DOI: 10.1177/1558689810390217
<http://jmmr.sagepub.com>
SAGE

Donna M. Mertens¹

Max Bergman and I have com
Methods Research (JMMR). I
manuscripts and other publicati
mitted to *JMMR* is reviewed by
both editors. This sequence of
desirable and what is undesiral
an opportunity to provide ins
(2007) after their first year as c
eral chapters in the *Sage Hand*
ed.; Tashakkori & Teddlie, 201
of publication.

Editorial

Publishing a Methodological Mixed Methods Research Article

Michael D. Fetters¹ and Dawn Freshwater²

Journal of Mixed Methods Research
2015, Vol. 9(3) 203-213
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/1558689815594687
jmmr.sagepub.com
SAGE

At the *Journal of Mixed Methods Research (JMMR)*, we welcome and encourage methodological/theoretical and original empirical mixed methods submissions. But to make the odds better for a competitive submission, we wanted to become more transparent about our expectations.

Box 1 Good Reporting of A Mixed Methods Study (GRAMMS)

- (1) Describe the justification for using a mixed methods approach to the research question
- (2) Describe the design in terms of the purpose, priority and sequence of methods
- (3) Describe each method in terms of sampling, data collection and analysis
- (4) Describe where integration has occurred, how it has occurred and who has participated in it
- (5) Describe any limitation of one method associated with the present of the other method
- (6) Describe any insights gained from mixing or integrating methods

mon reasons for
al and empirical
R. This editorial
011). At *JMMR*,
methodological
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. Thus, original
al issues should
empirical origi-
methodological

EVALUACIÓN CALIDAD DE REPORTE MM: MIXED METHODS APA STANDARDS



American Psychologist

2018, Vol. 73, No. 1, 26–46
http://dx.doi.org/10.1037/amp0001151

Journal Article Reporting Standards for Qualitative Primary, Qualitative Meta-Analytic, and Mixed Methods Research in Psychology: The APA Publications and Communications Board Task Force Report

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Michael Bamberg
Clark University

John W. Creswell
University of Michigan Medical School

David M. Frost
University College London

Ruthellen Josselson
Fielding Graduate University

Carola Suárez-Orozco
University of California, Los Angeles

The American Psychological Association Publications and Communications Board Working Group on Journal Article Reporting Standards for Qualitative Research (JARS-Qual Working Group) was charged with examining the state of journal article reporting standards as they applied to qualitative research and with generating recommendations for standards that would be appropriate for a wide range of methods within the discipline of psychology. These standards describe what should be included in a research report to enable and facilitate the review process. This publication marks a historical moment—the first inclusion of qualitative research in APA Style, which is the basis of both the *Publication Manual of the American Psychological Association* (APA, 2010) and APA Style CENTRAL, an online program to support APA Style. In addition to the general JARS-Qual guidelines, the Working Group has developed standards for both qualitative meta-analysis and mixed methods research. The reporting standards were developed for psychological qualitative research but may hold utility for a broad range of social sciences. They honor a range of qualitative traditions, methods, and reporting styles. The Working Group was composed of a group of researchers with backgrounds in varying methods, research topics, and approaches to inquiry. In this article, they present these standards and their rationale, and they detail the ways that the standards differ from the quantitative research reporting standards. They describe how the standards can be used by authors in the process of writing qualitative research for submission as well as by reviewers and editors in the process of reviewing research.

Keywords: qualitative research methods, qualitative meta-analysis, reporting standards, mixed methods, APA Style

Historically, APA Style, which is the basis for both the *Publication Manual of the American Psychological Association* (hereinafter referred to as the *Publication Manual*; APA, 2010) and APA Style CENTRAL, has defined the

standards and style of research reporting for psychology as well as many other social science journals. APA Style, however, has not included reporting standards for qualitative research. As a result, authors preparing reports of

Heidi M. Levitt, Department of Psychology, University of Massachusetts Boston; Michael Bamberg, Department of Psychology, Clark University; John W. Creswell, Department of Family Medicine, University of Michigan Medical School; David M. Frost, Department of Social Science, University College London; Ruthellen Josselson, School of Psychology, Fielding Graduate University; Carola Suárez-Orozco, Graduate School of Education, University of California, Los Angeles.

The authors of this article are members of the APA Publications and Communications Board Working Group on Qualitative Research

Reporting Standards (Working Group). The Working Group thanks the APA Publications and Communications Board, the Society for Qualitative Inquiry in Psychology's International Committee, and the Council of Editors for comments and suggestions on a draft of this article. This report was prepared with assistance from Emily Leonard Ayubi and Anne Woodworth.

Correspondence concerning this article should be addressed to Heidi M. Levitt, Department of Psychology, University of Massachusetts Boston, 100 Morrissey Boulevard, Boston, MA 02466. E-mail: Heidi.Levitt@umb.edu



APA Style JARS
Journal Article Reporting Standards

JARS–Mixed | Table 1

Mixed Methods Article Reporting Standards (MMARS)
Information Recommended for Inclusion in Manuscripts That Report
the Collection and Integration of Qualitative and Quantitative Data

Title Page

Title

- See the JARS–Qual and JARS–Quant Standards.

Guidance for Authors

- Refrain from using words that are either qualitative (e.g., “explore,” “understand”) or quantitative (e.g., “determinants,” “correlates”), because mixed methods stands in the middle between qualitative and quantitative research.
- Reference the mixed methods, qualitative methods, and quantitative methods used.

Author Note

- See the JARS–Qual and JARS–Quant Standards.

Abstract

- See the JARS–Qual and JARS–Quant Standards.

- Indicate the mixed methods design, including types of participants or data sources, analytic strategy, main results/findings, and major implications/significance.

Guidance for Authors

- Specify the type of mixed methods design used. See the note on types of designs in the Research Design Overview section of this table.
- Consider using one keyword that describes the type of mixed methods design and one that describes the problem addressed.
- Describe your approach(es) to inquiry and, if relevant, how intersecting approaches to inquiry are combined when this description will facilitate the review process and intelligibility of your paper. If your work is not grounded in a specific approach(es) to inquiry or your approach would be too complicated to explain in the allotted word count, however, it would not be advisable to provide explication on this point in the abstract.

Introduction

Description of Research Problems/Questions

- See the JARS–Qual and JARS–Quant Standards.

Description of Research Problems/Questions (continued)

Guidance for Authors

- This section may convey barriers in the literature that suggest a need for both qualitative and quantitative data.

Guidance for Reviewers

- Theory or conceptual framework use in mixed methods varies depending on the specific mixed methods design or procedures used. Theory may be used inductively or deductively (or both) in mixed methods research.

Study Objectives/Aims/Research Goals

- See the JARS–Qual and JARS–Quant Standards.

- State three types of research objectives/aims/goals: qualitative, quantitative, and mixed methods. Order these goals to reflect the type of mixed methods design used.

- Describe the ways approaches to inquiry were combined, as it illuminates the objectives and mixed methods rationale (e.g., descriptive, interpretive, feminist, psychoanalytic, postpositivist, critical, postmodern, constructivist, or pragmatic approaches).

Guidance for Reviewers

- A mixed methods objective, aim, or goal may not be familiar to reviewers. It describes the results to be obtained from using the mixed methods design type where “mixing” or integration occurs (e.g., the aim is to explain quantitative survey results with qualitative interviews in an explanatory sequential design). For instance, the goal of a qualitative phase could be the development of a conceptual model, the goal of a quantitative phase could be hypothesis testing based upon that model, and the goal of the mixed methods phase could be to generate integrated support for a theory based upon quantitative and qualitative evidence.

Method

Research Design Overview

- See the JARS–Qual and JARS–Quant Standards.

- Explain why mixed methods research is appropriate as a methodology given the paper's goals.

- Identify the type of mixed methods design used and define it.

- Indicate the qualitative approach to inquiry and the quantitative design used within the mixed methods design type (e.g., ethnography, randomized experiment).

- Indicaciones de la American Psychological Association (APA) para el reporte de estudios mixtos: <https://apastyle.apa.org/jars/mixed-table-1.pdf>

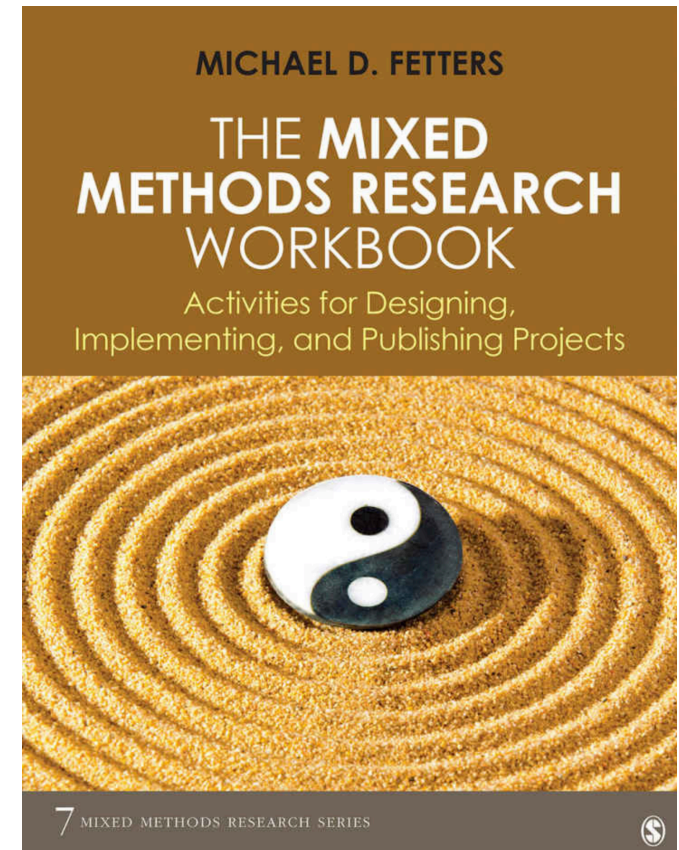
COMPONENTES CALIDAD DE REPORTE MM

1. Inclusión de una justificación para el uso de MM
2. Formulación de preguntas de investigación coherentes con MM
3. Descripción del enfoque teórico/filosófico del estudio
4. Descripción del diseño MM usado
5. Inclusión de un diagrama ilustrando el diseño MM
6. Descripción detallada de los procedimientos CUAN y CUAL
7. Descripción narrada de la integración de CUAN y CUAL
8. Inclusión de un *joint display* que permita ilustrar la integración de los componentes CUAN y CUAL
9. Identificación de las amenazas a la validez del estudio y de las estrategias llevadas a cabo para hacerles frente
10. Explicitación del valor añadido obtenido a partir de la integración

REPORTE DE LA INTEGRACIÓN

Fetters (2020) plantea 3 formas de reporte de la integración de CUAN y CUAL:

- Narrativa
Descripción verbal de la expansión, convergencia, divergencia entre CUAN y CUAL
- Joint Display
Ilustración de la integración en forma de tabla, diagrama o figura con el fin de explicitar el valor añadido
- Transformación de datos
Conversión de datos CUAL a CUAN o viceversa



REPORTE INTEGRACIÓN - NARRATIVA

JOURNAL OF PALLIATIVE MEDICINE
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DOI: 10.1089/jpm.2017.0259

Exploring Opportunities for Primary Outpatient Palliative Care for Adults with Cystic Fibrosis: A Mixed-Methods Study of Patients' Needs

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Kathleen J. Ramos, MD, MPH,² Miriam I. Zander, BA,³ Shacole S. Howard, BA,⁴
Christopher H. Goss, MD, MS, FCCP,^{2,5,6} and Moira L. Aitken, MD, FRCP²

Abstract

Background: Persons with cystic fibrosis (CF) experience high morbidity and mortality, yet little is known about their palliative care needs and how clinicians may address these needs.

Objectives: (1) To identify palliative care and advance care planning needs of patients with CF and their families; and (2) to identify clinicians' potential roles in meeting these needs.

Methods: A mixed-methods study of adult patients (age ≥18 years) with moderate-to-severe CF [forced expiratory volume in the first second (FEV₁) <65% predicted] were recruited from a CF Center. Semi-structured interviews (30–60 minutes) and questionnaires were administered in person or by phone. Grounded theory was used to analyze the interviews. Questionnaires were analyzed descriptively.

Results: Forty-nine patients (FEV₁ % range = 19%–63%) participated; the participation rate was 80% for eligible patients. Three main domains of palliative care needs were identified: (1) to be listened to, feel heard, and be "seen"; (2) understanding the context around CF and its trajectory, with the goal of preparing for the future; and (3) information about, and potential solutions to, practical and current circumstances that cause stress. In questionnaires, few patients (4.3%) reported talking with their clinician about their wishes for care if they were to become sicker, but mixed-methods data demonstrated that more than half of participants were willing to receive palliative care services provided those services were adapted to CF.

Conclusion: Patients expressed a need for and openness to palliative care services, as well as some reluctance. They appreciated clinician communication that was open, forthcoming, and attuned to individualized concerns.

Keywords: adult cystic fibrosis; advance care planning; palliative care; unmet needs

Introduction

CYSTIC FIBROSIS (CF) is a genetic disease with a median survival that has increased markedly in recent decades from 25 to 42 years of age.^{1–3} During this time, research has focused on developing therapeutics to improve the quality and quantity of life for persons living with CF. Despite improved outcomes and longevity, most patients with advanced CF will experience years of life with severe lung disease⁴ and its accompanying impacts on symptoms, quality of life, and

complex treatment decisions. All of these challenges can be addressed by palliative care.^{4,5} However, because of its association with end-of-life (EOL) care, clinicians and patients may be reticent to talk about palliative care services, particularly in the outpatient setting.⁶ This discomfort may partially explain the slow acceptance of palliative care for patients with CF. Yet, when Centers have added a palliative care specialist to their CF team the provision of palliative care services and completion of advance care plans has increased significantly.⁷

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Accepted December 4, 2017.

Narrativa de divergencia entre CUAN y CUAL

viders and palliative care specialists.^{11,30,31} This openness was supported strongly in the interview data and somewhat less so in the survey data, where only 10% of respondents endorsed wanting a discussion with their CF doctor about care if they became too sick to speak for themselves. How-

Narrativa de convergencia entre CUAN y CUAL

In both our qualitative and quantitative data, we found that respondents identified easier or harder times during which to have these discussions. In interviews, our participants felt

Narrativa de convergencia entre CUAN y CUAL

distracted. This concern—that doctors may not have sufficient time to have these conversations—was also identified in the survey data as a barrier to goals of care discussions with their clinicians. Our respondents observed that clinicians

Diseño
convergente
Hobler et al
(2018)

REPORTE INTEGRACIÓN – JOINT DISPLAY

Diseño convergente Escalante (2016)

Table 25

Cross-case comparison and mixed methods integration of quantitative data and qualitative data of the convergent design–The U.S.

Construct	Variable	Ian	Myrna	Ricardo	Jazmin
Children's eating behaviors-parents	Satiety ($M=3.020$)	3.00	2.80	2.80	2.40
	Good appetite	Good appetite	Good appetite	Good appetite	No a big appetite
	(o) (i)	(o) (i)	(o) (i)	(o) (i)	(o) (i)
	Food responsiveness ($M=2.374$)	3.80	2.80	n.a.	2.80
	Would eat most of the time (i)	Would eat too much (i)	Would eat too much (i)	n.a.	n.a.
Children's eating behaviors-teachers	Satiety ($M=2.730$)	3.20	n.a.	n.a.	n.a.
	Good appetite	Good appetite	Good appetite	Good appetite	No a big appetite
	(o) (i)	(o) (i)	(o) (i)	(o) (i)	(o) (i)
	Food responsiveness ($M=2.295$)	2.20	n.a.	n.a.	n.a.
Moderators	Effortful control ($M=5.427$)	n.a.	n.a.	n.a.	n.a.
	Parent-child relationship, conflict ($M=2.109$)	4.55	4.91	5.58	5.82
	Parent-child relationship, closeness ($M=4.786$)	3.25	2.50	1.00	1.00
	Teacher-child relationship, conflict ($M=1.759$)	n.a.	n.a.	n.a.	n.a.
	Teacher-child relationship, closeness ($M=4.116$)	5.00	5.00	5.00	5.00
	feeling/experiences	feeling/experiences	feeling/experiences	feeling/experiences	feeling/experiences
Parental feeding Practices	Instrumental ($M=1.965$)	3.25	1.50	1.00	3.00
	Sweets as bribe (Ice cream)	Sweets as bribe (Ice cream)	Sweets as bribe (Ice cream)	Sweets as bribe (Ice cream)	Sweets as bribe (Ice cream)
	(o) (i)	(o) (i)	(o) (i)	(o) (i)	(o) (i)

Note. n.a.= there was not enough evidence in from the qualitative data sources; (o)= data from observations; (i)=data from interview. Adapted from "Integrating Quantitative and Qualitative Results in Health Science Mixed Methods Research Through Joint Displays", by T.C. Guetterman,

Bustamante (2019)

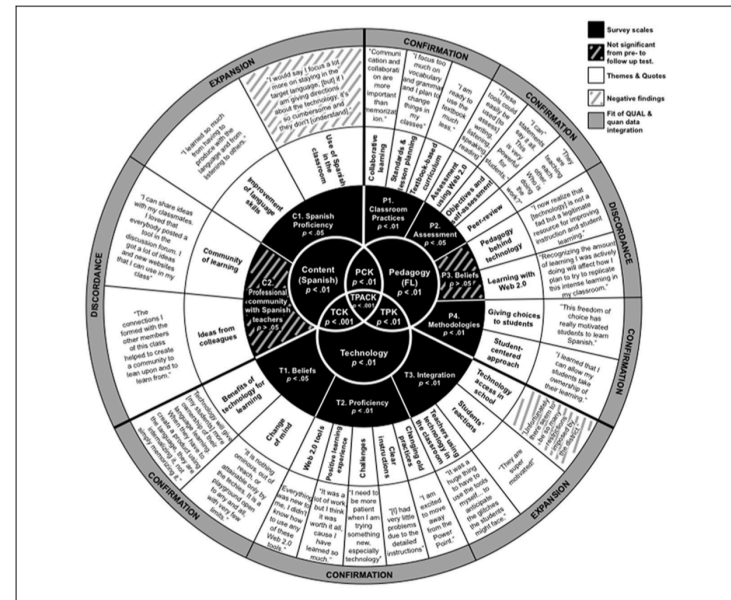


Figure 3. Joint display: TPACK-based integration of qualitative and quantitative data.

REPORTE INTEGRACIÓN – JOINT DISPLAY

Diseño secuencial exploratorio Watkins (2015)

Table 5. Nonspousal Family Support Joint Data Display of Qualitative and Quantitative Findings.

Qualitative subthemes (from Churches study)	Quantitative variables (from NSAL items)	p	Mixed methods interpretation
Men reported that family members (siblings/sons/daughters) help frequently.	How often do people in your family—including children, grandparents, aunts, uncles, in-laws, and so on—help you out? Would you say <i>very often</i> , <i>fairly often</i> , <i>not too often</i> , or <i>never</i> ?	<.001	Help: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.
Men reported that they communicate with family members often, and reach out to family whenever they need help.	How often do you see, write or talk on the telephone with family or relatives who do not live with you? Would you say <i>nearly every day</i> , <i>at least once a week</i> , <i>a few times a month</i> , <i>at least once a month</i> , <i>a few times a year</i> , <i>hardly ever</i> or <i>never</i> ?	<.001	Communication: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.
Men reported that they feel close enough to family members to go to them with their mental health problems.	How close do you feel toward your family members? Would you say <i>very close</i> , <i>fairly close</i> , <i>not too close</i> , or <i>not close at all</i> ?	<.001	Closeness: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.
Men reported that they feel emotionally supported by family members regarding their mental health needs.	Other than your (spouse/partner), how often do your family members make you feel loved and cared for? Would you say <i>very often</i> , <i>fairly often</i> , <i>not too often</i> , or <i>never</i> ?	<.001	Feel Loved: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.
Men reported how well their family members listen to them, how they feel connected to family members.	Other than your (spouse/partner), how often do your family member listen to you talk about your private problems and concerns? Would you say <i>very often</i> , <i>fairly often</i> , <i>not too often</i> , or <i>never</i> ?	<.001	Listen: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.
Men reported that their family members appear interested in their mental health needs and overall well-being.	Other than your (spouse/partner), how often does your family member express interest and concern in your well-being? Would you say <i>very often</i> , <i>fairly often</i> , <i>not too often</i> , or <i>never</i> ?	<.001	Interested/Concerned: Not only was it socially and culturally (QUAL) relevant, but it was also found to be statistically significant (QUAN) for older, Church-going African American men in the study.

Note. NSAL = National Survey of American Life; QUAL = qualitative; QUAN = quantitative.

REPORTE INTEGRACIÓN – JOINT DISPLAY

**Diseño
secuencial
explicativo
McCruden &
McTigue
(2018)**

Table 3. Integrated Results Matrix.

Group	Evidence type	Quantitative results		Summary	Qualitative results		
		Belief-consistent arguments, <i>M (SD)</i>	Belief-inconsistent arguments, <i>M (SD)</i>		Exemplar quote	Summary	Meta-inference
More-objective	Temperature	4.70 (1.06)	4.60 (0.97)	Strength ratings for belief-consistent and belief-inconsistent arguments did not differ.	P1: "They are both pretty much the same argument; they are just saying opposite things. [The argument for climate change] is saying that they are changing and [the argument against climate change is saying that it] isn't, but it's over the same period of time, and it's just a different glacier doing a different thing. So each of them is only showing one example of a glacier; it doesn't count for the whole world."	Evaluated arguments based on the quantity of evidence independently of whether the arguments were belief-consistent	Holding a belief did not necessarily lead to biased reasoning; rather, biased reasoning occurred when individuals applied a more critical standard of evaluation to belief-inconsistent arguments.
	Sea level	5.10 (1.10)	5.10 (1.37)				
	Glacier	4.50 (1.35)	4.50 (1.35)				
Less-objective	Temperature	6.00 (1.94)	4.20 (2.86)	Belief-consistent arguments rated higher than belief-inconsistent arguments.	P32: "Because [the argument against climate change] is not really proof that humans are not contributing to climate change; one glacier doesn't really count for all the glaciers around the world. But [the argument for climate change] is stronger proof that something is being done to the places around the world . . . I think there must have been something happening to make the glacier shrink; it's kind of unlikely for the glacier to shrink by itself."	Evaluated arguments based on whether they were consistent with their beliefs (more critical of belief-inconsistent arguments)	
	Sea level	5.20 (1.81)	3.80 (1.75)				
	Glacier	5.30 (1.77)	3.00 (1.76)				

REPORTE INTEGRACIÓN – TRANSFORMACIÓN DE DATOS

Fàbregues
et al (2018)

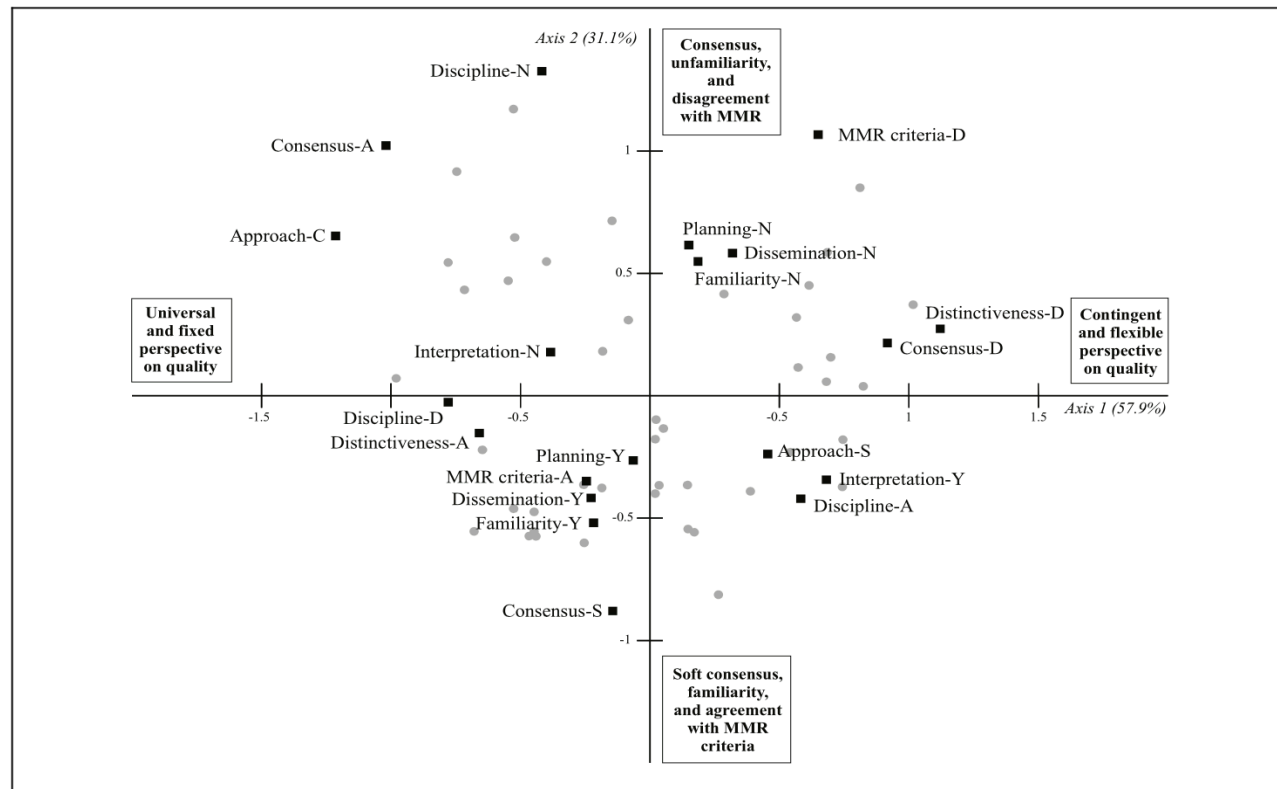


Figure 1. Multiple correspondence analysis (MCA) map of the conceptualization of the quality of mixed methods research (MMR) by study participants: Active categories in Axes 1 and 2 and cloud of participants. *Note.* The squares represent the position of each active category in the coordinate system and the dots represent the position of each participant. A key to abbreviations of the categories is given in Table 5.



5. DESARROLLO DE REDES HISPANO-HABLANTES Y LATINOAMERICANAS SOBRE MM

ALIMM (ASOCIACIÓN LATINOAMERICANA DE INVESTIGACIÓN EN MÉTODOS MIXTOS)



- Fundada en 2019, ALIMM es la primera asociación profesional de habla hispana que fomenta el desarrollo de una comunidad de académicos de MM con sede en países latinoamericanos (Colombia, Chile, Paraguay). ALIMM tiene los siguientes objetivos:

- Dar a conocer a los académicos latinoamericanos el valor añadido de MM.
- Brindar capacitación y tutoría a académicos y estudiantes latinoamericanos de habla hispana en el diseño, conducción y publicación de estudios de MM.
- Promover altos estándares de calidad en el diseño, conducción y publicación de estudios MM realizados en América Latina.
- Crear foros que fomenten el debate y el intercambio de ideas sobre MM entre académicos de habla hispana.
- Crear repositorio de materiales de consulta sobre MM en español.
- Facilitar oportunidades de redes sociales y fomentar la colaboración MM entre académicos latinoamericanos.
- Visibilizar y divulgar estudios MM de calidad realizados por académicos latinoamericanos.

 @ALIMM_mixtos

 @investigar_publicar

 @ALIMMmixtos

- Para acceder al repositorio de esta serie de videos, incluyendo las diapositivas, puede visitar el archivo a partir del enlace siguiente del IIQM de la University of Alberta:
<https://www.ualberta.ca/international-institute-for-qualitative-methodology/webinars/mixed-methods-webinar/archived-webinars.html>
- La conferencia *Thinking Qualitatively Conference 2020* se ha pospuesto a los días 5-10 de julio de 2021. Se celebrará en la University of British Columbia Okagan en Kelowna, British Columbia, Canadá. Por favor, estén atentos a nuestra página web y a las notificaciones, en nuestras redes sociales, acerca del call for abstracts. Esperamos verlos a todos en Kelowna en julio de 2021! <https://www.ualberta.ca/international-institute-for-qualitative-methodology/conferences-workshops-and-events/thinking-qualitatively-workshops/index.html>



Para más información sobre la University of British Columbia Okanagan y la región de Kelowna, puede consultar:

<https://ok.ubc.ca>

<https://www.tourismkelowna.com>

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www.iiqm.wordpress.com

UNA INTRODUCCIÓN A LA INVESTIGACIÓN EN MÉTODOS MIXTOS

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IIQM/MMIRA Webinar

14 abril 2020