Journal of Investigative Psychology and Offender Profiling

IAI̯ꞮP
INTERNATIONAL ACADEMY OF INVESTIGATIVE PSYCHOLOGY

Behavioural themes in Spanish missing person cases: an empirical typology

SCHOLARONE™
Manuscripts

"Behavioural themes in Spanish missing person cases: an empirical typology"

Néstor García-Barceló[1], José Luis González Álvarez[2], Penny Woolnough[3] and Louise Almond[4]

[1]Institute for Forensic and Security Sciences, Universidad Autónoma de Madrid, Francisco Tomás y Valiente Street, Madrid, Spain

[2]Spanish Secretary of State for Security, Ministry of Interior, D. Quijote Street, Madrid, Spain.

[3]Division of Psychology, School of Health and Social Sciences, Abertay University, Bell Street, Dundee, Scotland

[4]School of Psychology, University of Liverpool, Eleanor Rathbone Building, Bedford Street South, Liverpool, UK

Abstract

The high number of missing person reports that occur globally each year highlight the need for research in this academically neglected field. This research focuses on establishing whether there are different scenarios or behavioural themes that consistently appear in missing person cases in Spain, which could assist the police investigation process. A representative sample of 341 missing person police reports was collated and up to 27 behaviours, which occur during the disappearance, have been codified, as well as circumstances surrounding the case. Through multidimensional scaling (MDS) four behavioural themes have been identified: *intentional-escape, intentional-dysfunctional, unintentional-accidental,* and *forced-criminal*. These findings entail implications, both in terms of prevention and in the scope of police investigations. Specifically, this research is considered a key step in the development of: a) a predictive risk assessment system for harmed or deceased outcomes, and b) in-depth review of forced-criminal disappearances which concur with homicide.

INTRODUCTION

Over the last few years, there have been global improvements to the way in which missing persons are recorded, with a concomitant increase in the overall number of recorded missing persons (Ferguson & Soave, 2020; Gong, Cheng, Yang, Duan, Yao, Feng, Fu, Liu & Du, 2017; National Crime Agency, 2016; National Crime Information Center - FBI, 2019; Stevenson & Thomas, 2018; Todorović & Butorac, 2017). In Spain, the Spanish National Centre of Missing Persons (CNDES), which depends on the

Spanish Ministry of Interior, is the central authority in charge of the effective and continuous coordination of the "Sistema de Personas Desaparecidas y Restos Sin Identificar" (PDyRH system). Since the creation of PDyRH system in 2009 until 31st December 31 2019, there has been a total of 202,529 recorded cases among the national territory. Currently 14,060 are still active, which represent 7% of the total (Ministerio del Interior, 2019).

There is no singular definition of who is considered to be a 'missing person'. It depends on the context. In a wider sense, and to take account of the perspective of those families and friends who are 'left behind', Taylor, Woolnough & Dickens (2018) define a missing adult as an individual, 18 years of age or older, whose whereabouts are unknown to members of their familial, social or professional networks and where there is concern for either their own safety and wellbeing or that of others. This may result in the initiation of a formal or informal search. Nevertheless, law enforcement are legally responsible for investigating what has happened and attempting to trace the person (Bonny, Almond & Woolnough, 2016; Fyfe, Parr, Stevenson & Woolnough, 2015, James, Anderson & Putt, 2008). Addressing this phenomenon from the law enforcement perspective, the Association of Chief Police Officers (ACPO, 2013) considers a missing person as any person whose whereabouts cannot be established and where the circumstances are out of character or the context suggests that the person may be subject to a crime or at risk of harm to themselves or another. In this regard, the investigation of missing persons is a daily task for law enforcement which involves a significant investment of time and resources, including specialist units (Fyfe, et al., 2015; Greene & Pakes, 2013). To meet this operational challenge, and despite the fact in most cases the missing person returns quickly and unharmed (Greene, 2020; Tarling & Burrows, 2004) the police need to continuously assess the risk level of the person being harmed or deceased, as well as to allocate the necessary resources to each case (Bonny et al., 2016).

In Spain, during the last few years, the risk assessment process of harm has been conducted from a dichotomous perspective (limited/high risk) and only considering the police officers experience. In this regard, law enforcement identified some risk indicators of harm (e.g: being minor, victim of intimate partner violence or having mental health issues) that are added in the "Complaint Model" to gather data about the circumstances that surround the case. When a new missing person case is reported to law enforcement, police officers complete the "Complaint Model" and if they note the presence some of the risk indicators, they will consider the case as "high risk". Currently, a working group formed by academics and police officers who are members of CNDES is conducting research which may contribute to the empirical identification of risk factors of harmed or fatal outcomes.

As previously indicated by both operational and academic definitions, the circumstances associated with a missing person are wide ranging and can present considerable challenges to the police concerning the establishment of effective risk assessment

procedures. However, the missing persons field, and specifically the issue of police risk assessment, is an under-researched area. Considering the volume and extremely diverse nature of missing persons cases, as well as the fact that most persons are traced safe and well in the first 48 hours, there is a need to develop accurate risk assessments which may allow the early estimation of the low-base high risk cases which result in harm, a fatal outcome or remain missing. Traditionally, these assessments have been conducted from a subjective perspective which has been focused on the police professional experience and judgement (Biehal, Mitchell & Wade, 2003, Bonny et al., 2016, Fyfe, et al., 2015; Newiss, 1999, Tarling & Burrows, 2004).

However, many authors point out the need to address the risk assessment process from an empirical perspective (Bonny et al., 2016; Eales, 2017; Gibb & Woolnough, 2007; Fyfe et al., 2015; Kiernan & Henderson, 2002; Newiss, 2011). The problem appears when trying to establish an instrument capable of quantifying the risk of being harmed or deceased that the disappeared person may suffer. In this regard, an Evidence Based Policing (EBP) approach has been suggested to be the most suitable approach to police risk assessment (Bonny et al., 2016; Eales, 2017; Gibb & Woolnough, 2007; Hoggett & Stott, 2012). EBP approach focuses on the development of scientific research produced as a blending of police experience and academic research skills, with methodological rigor and in which results should be useful to policing, specifically for the establishment of policing programs (Huey & Ricciardelli, 2016).

In the scope of the missing person police investigations, one of the main tasks which seem to be useful for the establishment of policing procedures based on evidence related to the risk assessment of those cases which result in harm or fatal outcome, is the identification of typologies which will favour the early classification of the case. In this regard, some attempts to classify missing person cases considering the causes, motives, circumstances which surround the case and outcomes have been addressed across the globe. In the United Kingdom (UK), Payne (1995) classified missing person cases in five types: "runaways", "pushaways", "throwaways", "fallaways" and "takeaways". Using data from UK Charitable Organisations Biehal et al., (2003) re-considered the disappearance as a "missing continuum" which ranged from intentional to unintentional absences and differentiated four types: "decided to leave", "drifted", "unintentionally absent" and "forced to leave". In Australia, Henderson, Henderson & Kiernan (2000) used police data to identify three typologies: "those who leave to obtain independence or as a form of rebellion", "those that disappear due to adverse consequences", and "those that are lost involuntarily due to miscommunication or an accident". Similarly, in Spain, the National Centre of Missing Persons classifies cases into three groups based on law enforcement experience: "intentional", "unintentional" and "forced".

Ultimately, although some of these typologies are based on police data and police officers experience, they lack empirical support, which is considered essential for an EBP approach (Huey & Ricciardelli, 2016) to build a solid risk assessment framework of harm and fatal outcome. Specifically, to address this empirical support there is a need

for multivariate approaches to examining missing person typologies. Such a statistical approach has been previously utilised in the context of homicide and sexual assault (Canter & Heritage, 1989; Canter & Fritzon, 1998; Salfati, 2000).

However, while research on missing persons has been neglected in favour of other aspects of forensic and investigative psychology, there is just one study that has contributed empirical knowledge in the form of multivariate based typologies of missing person cases (Bonny et al., 2016). In this manner, Bonny et al., (2016) presented a multivariate statistically derived classification of UK adult missing person cases. From 362 police recorded cases, they coded 36 behaviours which they analysed using Smallest Space Analysis. They found that 70% of the adult missing person reports could be classified under a dominant theme as: "unintentional" (41%), "dysfunctional" (18%) or "escape" (11%). A significant association was also found between age, occupational status, whether they had any mental health issues, and the risk level assigned to the missing person; and their dominant behavioural theme. Consequently, this work clearly highlights the potential for multivariate informed investigative models of missing persons, but as their sample was UK specific it is not known whether these themes would exist in cases from other countries.

Grounded in the existing literature about missing person typologies as well as in their implications for operational practice and using a Spanish sample (hitherto unrepresented in academic missing persons literature), the work presented in this paper both attempts to replicate the work of Bonny et al (2016) and to build an empirical Spanish missing person typology. In this regard, the present research proposes that Spanish missing person cases will be classified based on an intentional-unintentional dimension as noted in Biehal et al's "missing continuum". In addition, considering Bonny et al's Unintentional theme, it is proposed that those cases that are classified in the 'unintentional' theme could be reclassified into two distinct groups based on whether there is third party involvement or not. Finally, the Spanish missing person typology would yield four main and inter-related behavioural themes: "intentional-escape", "intentional-dysfunctional", "unintentional-accident/drift" and "unintentional-criminal" (see **Table 1**).

Intentional – Escape
This theme is characterised by a person deciding to leave escaping/avoiding responsibilities linked to their closest environment. The person intentionally wants to disappear or at least leave the place in which the individual is situated (Biehal et al., 2003). Problems in the family environment, relationship problems, work difficulties or the need for personal space may contribute to the decision to disappear. This need to disengage could lead them to go to familiar or emblematic places where they feel safe and able to deal with their situation (Biehal et al., 2003; Parr, Stevenson, Fyfe & Woolnough, 2015; Bonny et al., 2016).

Intentional – Dysfunctional

This theme would include the situations in which the person decides to leave because of dysfunctional factors such as being under the influence of alcohol and drugs, mental ill health as depression, or suicidal tendencies (Gibb & Woolnough, 2007; Bonny et al., 2019). Consequently, the existence of suicide notes or previous suicide threats could be characteristic behaviours of this theme.

Unintentional – Accidental/Drift

In this theme, cases are classified as unintentional because they have arisen as a result of a miscommunication or an accident rather than a conscious decision (Henderson et al., 2000). This may encompass a situation in which the status of being a 'missing person' arises due to confusion over meeting at an expected time / on an expected day. It may also encompass disappearances because of neurodegenerative ill health (e.g., disorientation, Alzheimer, dementia). The most relevant circumstances in these situations could be accidentally failing to take their medication, the voluntary abandonment of medication or having an accident (Gibb & Woolnough, 2007).

Unintentional – Criminal

In this theme, cases are characterised by criminal activity. The disappearance may be due to kidnapping, homicide, sexual abuse, etc. and it is the influence of a third party that generates the disappearance (Bonny et al, 2016). Behaviours and circumstances such as being a victim of homicide (Newiss, 2006), or being in an abduction/separation process (Biehal et al., 2003; James et al., 2008), are characteristics that could reflect the unintentionality of the disappearance.

Aims of the study

This study focuses on whether the wider circumstances surrounding the missing person case can be ascribed to one of the four behavioural themes set out above. It is hypothesised that each of the four behavioural themes contains a set of thematically similar characteristics that consistently co-occur (see **Table 1**). Following Bonny et al., (2016, p.5), we are not suggesting that they represent mutually exclusive categories, but hypothesise that as they are psychologically and environmentally distinct the cases will be able to be classified into one dominant behavioural theme.

In this regard, there is a need to understand and know the scenario, factors and vulnerabilities that influence the behaviour of individuals who go missing from an empirical perspective (Biehal et al., 2003, Eales, 2017; Newiss, 2011, Taylor et al., 2018). The purpose of this research is to focus on establishing whether there are different scenarios or behavioural themes that appear in the scope of disappearance cases in Spain, as well as studying the association of the themes with demographic and risk variables. Specifically, if it is possible to classify missing person cases into a dominant theme when they are first reported to law enforcement making it possible to develop an investigative framework for law enforcement response earlier depending on

the characteristics of the theme. This research will also explore these dominant themesin relation to broader issues of risk assessment, prevention and protection (Bonny et al., 2016, Fyfe et al., 2015, Taylor et al., 2018).

METHOD

Sample

A random sample of missing person police records solved in 2017 (from 1st January 2017 to 31st December 2017) was requested from the CNDES representative of territory, sex, age, and duration criteria. Where an individual had been reported missing more than once, only the most recent incident was included (Bonny et al., 2016). In addition, considering the aims of this research and the fact that most missing person cases are solved in the first 24-48 hours with the individual returning unharmed (Greene, 2020; Ministerio del Interior, 2020; Tarling & Burrows, 2004), only cases with a duration greater than this were included. In this regard, these are cases most often related to harm or deceased outcomes (Foy, 2006), and those which have proven to be the most difficult cases for police investigations (Fyfe, et al., 2015; Newiss, 2006).

Initially 595 missing person police records that had been solved by law enforcement in 2017 were received. 356 police records of this initial sample were incomplete having just 239 police records available to be analysed, so a second application focused on increasing the sample size was carried out. During the second application some obstacles in the sample collection were found: 1) police units were sufficiently dispersed that this produced difficulties in the communication between the central authority (CNDES), requesting data on behalf of the researchers, and police units; 2) in Spain retaining information about police reports is not obligatory once they are completed. Consequently, the available information was sometimes not enough to be incorporated into the study. Finally, due to the difficulty in the systematisation of these kind of cases, the sample consisted of n=341 solved missing person reports received by Spanish National Police and Civil Guard, over a seven-year period from 2011 to 2018 (representing 71.6% of the solved cases recorded in 2017). While this final sample did not reach an appropriate representativeness in terms of year of reporting, territory and law enforcement area, it is still of interest due to its randomness and the overall absence of research of this nature in the academic literature. In this regard, this research may be considered as an exploratory and preliminary work, as well as the basis for future research which allow to dodge this limitation and verify the learned with this study.

As can be seen in Table 2, the age range was from one to 84 years old (M=37.5 years, SD=19.07); n=260 (76.2%) were over the age of 18 years (legal age in Spain) and n=81 (23.8%) under the age of 18 years. In addition, n=210 (61.6%) cases related to men and n=131 (38.4%) related to women. The sample reflects the findings of previous Spanish research that more men go missing than women (Ministerio del Interior, 2019). It was possible to identify presence or absence of mental health issues (MHI) in n= 235 (69%) cases, of which n=99 (29%) had a MHI. Occupational status was examined but it was

only possible to assess in 135 (40%) of cases. Given the importance of assigned risk level in the police first response, this variable was also gathered and n=93 (27.3%) were graded as limited risk and n=248 (72.7%) as high risk.

Data processing was conducted anonymously. Data were coded with an identification number, guaranteeing the confidentiality of the identity of the participants. All of that was developed respecting the Spanish data protection regulation (Ley Orgánica 3/2018, de 5 de diciembre de Protección de datos Personales y garantía de los derechos digitales).

Procedure

A multidisciplinary working group formed by academics and police officers' members of CNDES was constituted. A review (content analysis; Andreu, 2002) of 341 missing person cases reported to police between 2011 and 2018 was conducted. These cases comprise a structured checklist of 66 questions that are completed by investigators to explore vulnerabilities and collect intelligence to use in the future if a person is reported missing again. The checklist is designed to elicit information related to key elements of the missing person's behaviours, which occur during the disappearance as well as circumstances surrounding the case. The working group mentioned above developed a coding dictionary (see **Table 3**) according to the data available from the checklist, and 27 behavioural characteristics were coded as either present or absent for each individual. These data were collected according to the information that police officers gathered during the investigation of the case: from relatives, health institutions reports or social services.

As the data used in this study were not initially gathered for the purpose of scientific research, the consistency with which information is recorded in some cases was limited (Bonny et al., 2016; Canter & Alison, 2003). Following the ideas proposed in previous research (Almond, Canter & Salfati, 2006; Bonny et al., 2016; Dixon, Hamilton-Giachritsis & Browne, 2008) a dichotomous approach based on the presence/absence of the variable of interest, which is appropriate to ensure maximum clarity and reliability when using records not collected originally for this purpose, was conducted.

Two academics independent observers were used to assess the inter-rater reliability of the data coding across a separate sample of ten randomly selected missing person cases. A Kappa correlation coefficient of 0.80 (p<.000) was generated suggesting a high level of agreement.

Statistical analysis

For the purpose of this study multidimensional scaling (MDS) procedures were used in line with previous research (Almond et al., 2006; Bonny et al., 2016; Canter & Fritzon, 1998; Dixon et al., 2008; Salfati, 2000). In this regard up to 27 behaviours, which occur during the disappearance, as well as circumstances surrounding the case, were codified (see **Table 1**). The data analysis was carried out using Proximity Scaling (PROXSCAL)

which is a multivariate statistical procedure which tries to determine the existing structure in a proximities measure amount between variables by measuring the interdependence between different items and allows representation of them in space according to the similarity between each variable. In other words, a measure of association is calculated that indicates the degree of co-occurrence between each missing person behaviour (Bonny et al., 2016). The visual representation allows understanding of the results in distance terms, so the higher the association between any two given variables (behaviours), the closer they will appear on the spatial plot (Guttman, 1968; Sotoca, González & Halty, 2019). Lance and Williams' association measure, like Jaccard's coefficient, has previously been used and considered by some studies to be the most appropriate measure to use in the analysis of police data (Demey, Vicente-Villardón, Di Rienzo & Casanoves, 2011), because of the possibility that variables that are present may not have been recorded (Bonny et al, 2016, p.7). In addition, this particular method does not increase association when there are joint non-occurrences (Bonny et al., 2016; Canter, Bennel, Alison & Reddy, 2003). Using this statistical analysis, the pattern/structure of the missing persons' behaviours can be examined and identified as well as the behavioural themes defined. Finally, in order to provide an index of internal reliability between the variables that define the behavioural themes, Kuder-Richardson 20 (KR-20) coefficients were calculated. This is equivalent to Alpha's Cronbach coefficient but with dichotomous data (Dixon et al., 2008).

RESULTS

A PROXSCAL analysis was carried out on 27 behaviours across 341 missing person cases. The stress (normalized raw stress) value for the two-dimensional solution was 0.10, suggesting an acceptable fit between the PROXSCAL plot and the original association matrix (Arce, de Francisco & Arce, 2010; Kruskal & Wish, 1978; 1984). The variables are gathered by similarity in a two-dimensional space which is delimited by an axis related to the larger or less willingness, and another one related to the influence of thirds.

Regarding the aim of this study, this structure determines that missing person's behaviours, which occur during the disappearance, as well as circumstances surrounding the case, could be classified into four distinct themes: 'Intentional-Escape', 'Intentional-Dysfunctional', 'Unintentional-Accidental/Drifted', and 'Unintentional-Criminal'. The co-occurrence of the behaviours within the sample can be divided in four thematic subgroups made up of a subset of co-occurring behaviours (see **Figure 1**).

Table 3 shows the behaviours within each behavioural theme and the corresponding percentage frequencies. The highest behaviour in the 'Intentional-Escape' theme was "Having problems in their family environment" (22.3%); in the 'Intentional-Dysfunctional' theme it was "Having emotional problems" (19.4%); in the 'Unintentional-Accidental' theme it was "Having a busy lifestyle" (30.2%) and in the 'Unintentional-Criminal' theme it was "Having their mobile phone" (41.1%).

Intentional-Escape

This missing persons theme is characterised by the five behaviours seen in Figure 1 located at the top right of the plot. These behaviours reflect an individual who is coping with stressors in the family environment. This is indicated by "having family problems" sometimes preceded by "previous arguments" and the intention of "avoiding responsibilities" in this context. They "need space" from their family environment, so they decide to escape, although sometimes it is shown as a "rebellious behaviour".

Intentional -Dysfunctional

Seven behaviours exhibited by missing persons, which indicate vulnerabilities related to "economical" and "emotional problems", as well as being under the influence of alcohol or drugs, can be seen in Figure 1 located at the top left of the plot. There are some circumstances that widely characterize this theme including the presence of "previous suicide threats", "suicide notes" and "self-harm attempts". In this regard some individuals intentionally leave by "going to a symbolic place".

Unintentional -Accidental/Drift

Three behaviours, seen in Figure 1 at the bottom left of the plot, indicate some situations that are highly influenced by mental health or neurodegenerative issues. This includes circumstances such as "intentional abandon of their medication" or "missing their medication" and indicate vulnerabilities which produce a "health accident" (e.g., disorientation) while "travelling on foot". On the other hand, circumstances such as "having a busy lifestyle" occasionally produce miscommunication situations in which the person is unintentionally reported to police as missing.

Forced -Criminal

The remaining nine behaviours can be seen in the Figure 1 at the bottom right of the plot. These behaviours reflect an individual unintentionally missing who is influenced by a third party and related to criminal facts. It is characterised by circumstances such as "having problems related to criminality", "being a separation process with an ex-partner" or "being in a different country". There are some key behaviours such as "being victim of a crime", "meeting with an intimate partner or ex" that clearly define this theme. "Having documentation", "using transport", "having personal effects (luggage)" and "having mobile telephone" are behaviours also related with this theme. This behavioural theme is highly represented by intimate partner homicide cases.

As mentioned before, the internal reliability for each behavioural theme was calculated using the Kuder-Richardson 20 (KR-20) coefficient (Kuder & Richardson, 1937). The Intentional-Escape theme was .635, the Intentional-Dysfunctional was .592, the Unintentional-Accidental was .554, and the Unintentional-Criminal was .564. These results show reasonable reliability among the items of each group, reporting similar results to research conducted and models published in the international context (Bonny et al., 2016; Canter et al., 2003; Porter & Alison, 2004). Although these coefficients do

not meet the criteria of a scale (>.7), they are sufficiently high enough (>.5) to indicate the themes are meaningful and coherent (Almond et al., 2006, Bonny et al., 2006; Subkoviak, 1988).

Classifying missing persons in terms of a dominant behavioural theme

This study hypothesised that the missing person's behaviours, which occur during the disappearance as well as circumstances surrounding the case, would reflect one dominant behavioural theme, although an individual may display behaviours from more than one theme. In this regard, as they are psychologically and environmentally distinct they would be able to be classified in one dominant theme.

The identification of the dominant themes was carried out using the criteria proposed by Bonny et al., (2016) and Almond et al., (2006). The percentage of occurrence of the variables in the dominant theme had to be greater than the sum of the percentage of occurrence for the other three themes. If the sum of the two highest percentages of the four behavioural themes was greater than that of triple the lowest, the case was assigned as a hybrid because it mainly displayed characteristics from the two highest behavioural themes. If not (i.e., no themes were dominant) it was deemed unclassifiable (Bonny et al., 2016, p.11).

Using this approach 51.6% of the 341 missing person cases could be classified into a dominant theme; 19.9% were 'Intentional-Escape', 15.5% were 'Intentional-Dysfunctional', 6.5% were 'Unintentional-Accidental/Drift' and 9.7% were 'Unintentional-Criminal'. A further 16.1% were classified as hybrid and 32.3% were unclassifiable.

Analysis of the dominant theme and demographic characteristics

Chi-squared tests were conducted to determine if gender, age, nationality, mental health, and the condition of the missing person when located were distributed differently across the themes (see **Table 4**). Hybrid and unclassifiable cases were excluded from this analysis.

No significant relationship was found between nationality, risk level and the themes. Therefore these variables provide no indication about the type of missing person.

A significant association was found between missing person gender and their dominant behaviour theme. Going intentionally missing as a means of 'Dysfunctional' or unintentionally missing as a means of 'Accidental' was present in a higher proportion of males. In contrast, going intentionally missing because of 'Escape' or 'Criminal' reasons was present in a higher proportion of females. Cramer's coefficient V was used to determine the strength of the association (Cramer & Nicewander, 1979), and this association was found to be a medium effect: $V = .274$.

Another significant association was found between the age of missing persons and their dominant behavioural theme. Going intentionally missing as a means of 'Dysfunctional' and unintentionally as a means of 'Accidental' was present in higher proportion of adults. In contrast, intentionally missing because of 'Escape' reasons was present in higher proportion of minors. This association was found to be a medium effect: $V =$ .573.

A further Chi-squared test was carried out on the sample excluding cases where the mental health background was unknown. A significant association was found between the missing person's MHI and their dominant theme. Going unintentionally missing as a means of 'Accidental' was greater in missing persons with MHI. This association was found to be a medium effect: $V = .503$.

Finally, a significant association was found between the state of the missing person when located and their dominant behavioural theme. Missing persons that went intentionally missing as a means of 'Escape' were found in a good state of health, to a higher proportion. Those who went unintentionally missing as a means of 'Accidental' were found to be harmed (but not deceased) to a higher proportion. In contrast, missing persons that went intentionally missing as a means of 'Dysfunctional' were located deceased in a higher proportion. This association was found to be a medium effect: $V =$ .411.

DISCUSSION

This research has, for the first time, allowed us to explore in-depth the phenomenon of missing persons in Spain, and to generate knowledge that could be applied to address the main challenges experienced by the public authorities working in this area. Specifically, it can contribute to the establishment of evidence informed operational strategies which allow for a more effective initial and ongoing police response to reports of missing people. Although results are similar to the UK based research presented by Bonny et al., (2016), where three themes were identified, this Spanish based research identified four thematic scenarios in the scope of the disappearances (Figure 1): *'intentional-escape', 'intentional-dysfunctional', 'unintentional-accidental/drifted', and 'unintentional-criminal'*. Statistical associations between the scenarios and different variables including: sex, nationality, mental health issues, or outcome (good state of health, harmed, and deceased) were studied, in pursuit of early indicators of persons at risk serious harm or a fatal outcome.

Of the 27 studied variables (circumstances surrounding the disappearance), the majority of them fell within one of the four predicted scenarios (**Table 3**), as hypothesised. However, the results showed that frequencies of these variables were low or medium, which could suggest the existence of further subgroups within each theme (Bonny et al., 2016). Furthermore, some variables were associated with different scenarios than hypothesised: "having mobile" and "having documentation" fell within 'Unintentional-Criminal' instead of 'Intentional-Escape'. This may be due to in disappearances which concur with homicide or human trafficking the victims are approached when conducting

their routine activities in which having their mobile or documentation could be implied. On the other hand, the presence of a "previous argument" fell within 'Intentional-Escape' instead of 'Unintentional-Criminal' as predicted. This may be owing to the disappearances which are related to runaways are highly influenced by conflicts which may come from previous arguments. The variable "being in a different country from the one of origin" fell within 'Unintentional-Criminal" instead of 'Unintentional-Accidental/Drift', which may be because in those cases which concur with intimate partner homicide or with human trafficking, foreigner victims have a lack of contact with their nearest environment that which may come from being in a different country from the one of origin. "Going to a different place (region, neighbourhood)" fell within "Intentional-Dysfunctional" instead of 'Unintentional-Accidental/Drift', which may be as in disappearances which the person goes to a symbolic place or attempts suicide, the place is in a different region or neighbourhood. Finally, "carrying luggage" fell within 'Unintentional-Criminal' instead of 'Intentional-Escape'. This may be due to in disappearances which concur with intimate partner homicide the fatal outcome may come from a situation where the victim has met with the aggressor to take her luggage, and in those cases which concur with human trafficking the disappearance may come from a situation where the victims have intended to travel to a different country looking forward to improve the quality of their lives.

It is important to note that "having a busy lifestyle" and "travelled on foot" were not meaningful and coherent with the rest of the items of the themes, although they are expected to be reliable with the items which characterise the themes "Intentional-Dysfunctional" or "Unintentional-Accidental/Drifted" when replicating this analysis using a higher sample size.

Regarding the second hypothesis, the majority of the cases could be classified in one specific scenario. Nevertheless, it was only possible to classify 51.6% of them in one of the dominant themes, and 16.1% presented characteristics of different scenarios (hybrids), which suggest that it is necessary to conduct research focused on identifying other circumstances that help to classify and distinguish between the themes.

Biehal et al., (2003) proposed that disappearances may be considered as a missing continuum with two poles which ranged from intentional to unintentional. This proposal is partially supported by the results of the research since it is suggested that the variables are grouped by similarity in a two-dimensional space determined by: a) one axis related to higher or lower willingness, and b) another axis related to the influence of third parties. Considering the first dimension (Biehal et al., 2003), 35.4% of the cases were classified as intentional and 16.2% as unintentional. Regarding those cases classified as intentional: 19.9% of the cases were influenced by third parties and variables which defined this group were characteristic of escape situations (Intentional-Escape), and 15.5% of the cases were not influenced by third parties and the variables which defined this group were characteristic of suicide events or substance abuse (Intentional-Dysfunctional). Of those cases classified as unintentional: 6.5% were not influenced by third parties and the variables which defined this group were

characteristic of health accidents or drifted situations (Unintentional-Accidental/Drifted), and 9.7% of the cases were influenced by third parties and variables which defined this group were characteristics of crime situations or being victim of crime (Unintentional-Criminal).

Specifically with regards to the intentional cases: a statistical association was found between the 'Intentional-Escape' theme and minors, females and good state of health outcome, whereas statistical associations were found between the 'Intentional-Dysfunctional' theme and adults, males, and fatal outcomes (deceased). In pursuit of preventing 'Intentional-Escape' cases, it would be advisable, therefore, to encourage the development of educational and awareness raising campaigns of going missing, especially focused on minors and females. On the other hand, it is arguably logical to prioritise the allocation of police resources to 'Intentional-Dysfunctional' cases involving adult males, as well as to developing multi-agency suicide prevention and awareness campaigns with the goal of preventing deceased outcomes.

In those cases classified as unintentional: a statistical association was found between the 'Unintentional-Accidental/Drifted' theme and adults, males, mental health issues and harmed outcome. These findings have direct implications in relation to targeted prevention campaigns of going missing influenced by mental health issues or suffering an accident, especially focused on adults and males. In contrast, a statistical association was found between the 'Unintentional-Criminal' theme and females, which could be useful in terms of police risk assessment and decision-making during missing person cases related to intimate partner violence.

This research has produced empirical knowledge about the characteristics of missing person themes in Spain, which may contribute to the early classification of missing person cases reported to law enforcement. This will favour the improvement of police decision-making using an evidence-informed approach during missing person investigations with the main goals of prioritising appropriate cases and identifying lead hypotheses leading to reduced harm and an effective use of police resources. Considering some Spanish predictive policing models, such as the main one in assessing risk of reoffending in intimate partner violence cases (VioGén system; López-Ossorio, González-Álvarez, Muñoz, Urruela & Pueyo, 2019), the findings of this research could be useful for development of future research which will facilitate the establishment of a predictive missing person risk assessment tool that could facilitate statistical identification of the most likely scenario and the risk of a harmed or fatal outcome.

Limitations and future research

The results of this research suggest that there are specific factors that can influence why and how a person becomes missing. This further highlights the need for establishing investigation guidance and strategies that specifically consider the individual situations of each missing person case. However, one of the main limitations of this research is the size of the sample. In addition, the representativeness of the sample could not be ensured since there is an overrepresentation of the cases classified as 'Unintentional-

Criminal' (9.7%) and an underrepresentation of the cases classified as 'Intentional-Escape (19.9%)'. An internal research report conducted by the CNDES which focused on the contextualization of the missing people phenomenon suggests that there overall 86.6% of cases can strategically be classified as 'Intentional-Escape' and 0.5% as 'Unintentional-Criminal' cases. Consequently, the results presented here cannot be generalised to all located missing people. But rather to those more difficult cases which last more than 48 hours generating more difficulties in police investigations. However, despite this, the research presented here may be considered as an exploratory and preliminary work, it has increased empirical knowledge about missing person cases in Spain as well as learning which can facilitate improved training for law enforcement in charge of missing person investigations.

Another limitation is the fact that the police data utilised was not originally collected for the purpose of conducting research, which generated discrepancies in the overall validity and quality of the data. Specifically, there was a lack of sociodemographic and psychosocial data that could allow more complex / predictive analysis. Despite this, the use of police data in the investigative psychology field has been indicative of successful application (Bonny et al., 2016; Canter & Alison, 2003; Sotoca, González, Fernández, Kessel, Montesinos & Ruiz, 2013; Palermo & Kocsis, 2005). In Spain, is not compulsory to conduct return welfare interviews. This is a key opportunity to gather information about where the missing person went and what behaviours they displayed during their disappearance, so it seems appropriate to recommend the development of these kinds of interviews.

The research sample utilised here included adults and minors. However, the issue relating to missing adults and minors may differ and future research should distinguish between the circumstances that characterises adults and minors' disappearances in order to better establish if subgroups in the theme identified exist.

In order to try and overcome the limitations mentioned above, the CNDES has constituted a multidisciplinary research group formed by public servants (LEA's) and academics with the aim of: replicating this research with a representative sample of missing person cases which will favour the development of a missing person classification system; identifying risk factors of harmed and deceased outcomes in adults and minors which will favour the validation and calibration of a predictive risk assessment tool, and consequently the future development of police investigation strategies and search activities guidance considering the most likely scenario and outcome type.

In addition, research has suggested that missing person cases which end with a fatal outcome, especially those that concur with homicide, are low-base events (Bonny et al., 2016, Newiss, 2006). Nevertheless, these are events that concern public institutions and have a high social impact. Consequently, future research should focus on the in-depth review of fatal cases to describe the circumstances which surround the disappearance and the homicide with the main goal of identifying if these circumstances could

distinguish them from non-fatal missing person cases at time of report. Identified variables could be added to a future predictive model.

Finally, this research has attempted to replicate the research conducted by Bonny et al., (2016), the first UK attempt to identify behavioural themes of missing adults. Similarly, this research has shown, through the first empirical study of missing persons in Spain, that dominant behaviour themes for missing persons exist. These results allow us to establish a typology based on multivariate statistical methods which provides an objective investigative framework to guide practitioners, police officers and future research related to missing person cases. Moreover, these findings offer preventive opportunities at educational, health, labour and social level. This paper is considered as the first step in the development of future research focused on the creation, validation and calibration of a Spanish predictive risk assessment system for the most likely scenario and outcome, especially harmed or deceased, in missing person disappearances.

REFERENCES

Alison, L., Goodwill, A., Almond, L., van den Heuvel, C., & Winter, J. (2010). Pragmatic solutions to offender profiling and behavioural investigative advice. *Legal and Criminological Psychology*, 15(1), 115-132

Almond, L., Canter, D., & Salfati, G. (2006). Youths who sexually harm: A multivariate model of characteristics. *Journal of Sexual Aggression,* 12(2), 97–114. Doi:10.1080/13552600600823605.

Andreu, J. (2002). Las técnicas de análisis de contenido: una revisión actualizada. Documentos de trabajo: serie sociología. Fundación Centro de Estudios Andaluces. Descargado de http://public.centrodeestudiosandaluces.es/pdfs/S200103.pdf

Arce, C., de Francisco, C., Arce, I. (2010). Escalamiento multidimensional: Concepto y aplicaciones. *Papeles del psicólogo*, 31(1), 46-56.

Association of Chief Police Officers. (2013). *Interim guidance on the management, recording and investigation of missing persons*. Wyboston: College of Policing.

Biehal, N., Mitchell, F., & Wade, J. (2003). *Lost from view: Missing persons in the UK*. Bristol: Policy Press.

Bonny, E., Almond, L., & Woolnough, P. (2016). Adult Missing Persons: Can an Investigative Framework be Generated Using Behavioural Themes?. *Journal of Investigative Psychology and Offender Profiling, 13*(3), 296-312. Doi: 10.1002/jip.1459

Buckley, M. (2012). Towards more effective missing women investigations: Police relationships with victims" families, the community and the media. Report of the Missing Women Commission of Inquiry. Canadá.

Canter, D. (2004). Offender profiling and investigative psychology. *Journal of Investigative Psychology and Offender Profiling, 1*(15).

Canter, D., & Alison, L. J. (2003). Converting evidence into data: The use of law enforcement archives as unobtrusive measurement. *The Qualitative Report, 8*(2), 151–176

Canter, D., & Fritzon, K. (1998). Differentiating arsonists: A model of firesetting actions and characteristics. *Legal and Criminological Psychology, 3*, 73-96.

Canter, D., & Heritage, R. (1989). A multivariate model of sexual offence behaviour: Developments in offender profiling. *Journal of Forensic Psychiatry, 1*, 185-212.

Canter, D., Bennell, C., Alison, L., & Reddy, S. (2003). Differentiating sex offences: A behaviourally based thematic classification of stranger rapes. *Behavioural Sciences & Law, 21*, 157–174.

Cole, T., & Brown, J. (2014). 'Behavioural Investigative Advice: Assistance to Investigative Decision Making in Difficult-to-detect Murder.*' Journal of Investigative Psychology and Offender Profiling, 11*, 191–220.

Cramer, E. M., &. Nicewander, W. A. (1979), Some Symmetric, Invariant Measures of Multivariate Association, *Psychometrika, 44*, 43-54

Demey, J. R., Pla, L., Vicente-Villardón, J. L., Di Rienzo, J., & Casanoves, F. (2011). Medidas de distancia y de similitud.

Dixon. L., Hamilton-Giachritsis, C. & Browne, K.D. (2008). Classifying partner femicide. *Journal of Interpersonal Violence*; 23, 74-93.

Domènech, J. (2018). Tratamiento policial de las personas desaparecidas, especial atención a los familiares de los desaparecidos. Centro de Estudios Jurídicos.

Eales, N. (2017). *Risky business? A study exploring the relationship between harm and risk indicators in missing adult incidents (PhD Thesis)*. University of Portsmouth. Portsmouth, United Kingdom.

España. Secretaría de Estado de Seguridad. Instrucción 1/2009, sobre actuación policial ante la desaparición de menores de edad y otras desapariciones de alto riesgo. Boletín Oficial de la Guardia Civil, 20 de mayo de 2009, núm.14, pp. 3167-3171.

España. Secretaría de Estado de Seguridad. Instrucción 1/2017, por la que se actualiza el Protocolo de Actuación Policial con Menores. Ministerio del Interior.

España. Secretaría de Estado de Seguridad. Instrucción 14/2014, por la que se regula el procedimiento para la activación y funcionamiento del Sistema de Alerta Temprana por Desaparición de Menores (ALERTA-MENOR DESAPARECIDO). Ministerio del Interior.

España. Secretaría de Estado de Seguridad. Instrucción 2/2018, por la que se crea el Centro Nacional de Desaparecidos. Ministerio del Interior.

España. Secretaría de Estado de Seguridad. Instrucción 3/2019, por la que se regula la actuación policial ante la desaparición de personas. Ministerio del Interior.

Ferguson, L., & Soave, V. (2020): #Missing to #Found: Exploring police Twitter use for missing persons investigations. *Police Practice and Research*, DOI: 10.1080/15614263.2020.1753516

Foy, S. (2006). *Profiling missing persons within New South Wales (PhD thesis).* Charles Sturt University, Australia.

Foy, S. (2016). *A Profile of Missing Persons: Some Key Findings for Police Officers*. En S.J. Morewitz, C. Sturdy Colls (Eds.), Handbook of Missing Persons (p. 718). Cham: Springer

Fyfe, N., Parr, H., Stevenson, O., & Woolnough, P. (2015). To the End of the World: Space, Place, and Missing Persons Investigations. *Policing: a Journal of Policy and Practice, 9*(3), 275-283. Doi: 10.1093/police/pav025

García-Barceló, N., González, J.L., Ortigosa, A. & Cereceda. (2020). *Desapariciones con desenlace fatal de etiología homicida en España. Una revisión pormenorizada. (Informe Técnico).* Centro Nacional de Desaparecidos, Ministerio del Interior, España.

González, J.L., Sánchez, F., López-Ossorio, J.J., Santos, J. & Cereceda. (2018). *El homicidio en España (Informe Técnico).* Ministerio del Interior, España.

Gibb G., & Woolnough, P. (2007). *Missing persons: Understanding, planning, responding – a guide for police officers*. Aberdeen: Grampian Police.

Gong, X.D., Cheng, H., Yang, L., Duan, Y.M., Yao, Y., Feng, Y.F., Fu, L., Liu, J.H. and Du, M.Y. (2017). Analysis of Geographical Distribution of Missing Children Based on the Missing Children Mobile GIS Mutual Assistance System of China. *Journal of Geoscience and Environment Protection, 5*, 117-134.

Greene, S. K., & Pakes, F. (2013). The cost of missing person investigations: Implications for current debates. *Policing: A Journal of Policy and Practice, 8*(1), 27-34. doi: 10.1093/police/pat036.

Guttman, L. (1968). A general nonmetric technique for finding the smallest coordinate space for configuration of points. *Psychometrika, 33,* 465-506.

Henderson, M., Henderson, P., & Kiernan, C. (2000). *Missing persons: incidence, issues and impacts*. Australian Institute of Criminology, 144, 1-6.

Hoggett, J., & Stott C. (2012). Post G20: The challenge of change, implementing evidence-based public order policing. *Journal of Investigative Psychology and Offender Profiling, 9(2)*, 174-183.

Huey, L., & Ricciardelli, R. (2016). From seeds to orchards: using evidence-based policing to address Canada's policing research needs. *Canadian journal of criminology and criminal justice*, 58 (1), 119–131.

James, M., Anderson, J., & Putt, J. (2008). *Missing persons in Australia. Trends and issues in crime and criminal justice* (No. 353). Canberra: Australian Institute of Criminal Justice.

Kiernan, C., & Henderson, M. (2002). *Missing persons: Extending traditional policing boundaries to address a social issue.* Paper to Third Australasian women and policing conference: women and policing globally, 2 - 23.

Kruskal, J. P. & Wish, M. (1984). *Multidimensional scaling, Serie Quantitative Applications in the Social Sciences (vol. 11).* Beverly Hills: Sage Publications.

Kruskal, J.B. & Wish, M. (1978). *Multidimensional Scaling,* Murray Hill, N.J. Bell Laboratories.

Kuder, G. F. & Richarson, M. W. (1937). The theory of the estimation oftest reliability. *Psychometrika, 2,*151-160

López-Ossorio, J.J., González-Álvarez, J.L., Muñoz, J.M., Urruela, C., & Pueyo, A. (2019). Validation and calibration of the Spanish Police Intimate Partner Violence Risk Assessment System (VioGén). *Journal of Police and Criminal Psychology, 34*(4), 439-449. doi: 10.1007/s11896-019-09322-9

Ministerio del Interior. (2019). *Informe Personas Desaparecidas.* España: Centro Nacional de Desaparecidos.

Ministerio del Interior. (2020). *Informe Personas Desaparecidas.* España: Centro Nacional de Desaparecidos.

National Crime Agency and UK Missing Persons Bureau. (2016). *Missing persons Data Report 2014/2015*. London: NCA.

National Crime Agency (2017). Missing Persons Data Report 2015/2016. National

Crime Agency, 2017 (http://nationalcrimeagency.gov.uk/publications/876-missing-

persons-data-report-2015-2016-1/file).

National Crime Information Center - FBI (2017). *Missing Person and Unidentified Person Statistics.* Criminal Justice Information Service (CJIS).

Newiss, G. (1999). *Missing presumed...? The police response to missing persons*. Police Research.

Newiss, G. (2006). Understanding the risk of going missing: Estimating the risk of fatal outcomes in cancelled cases. Policing: *An International Journal of Police Strategies and Management, 29*(2), 246– 260. Doi:10.1108/13639510610667655

Newiss, G. (2011). *Learning from fatal disappearances. A report by missing people.* London: Missing People.

Palermo, G.B. & Kocsis, R.N. (2005). *Offender Profiling: An Introduction to the Sociopsychological Analysis of Violent Crime*. Springfield, IL: Charles C. Thomas.

Parr, H., Stevenson, O., Fyfe, N. and Woolnough, P. (2015). Living absence: the strange geographies of missing people. Environment and Planning D: Society and Space, 33(2), 191-208

Payne, M. (1995). Understanding 'going missing': Issues for social work and social services. *The British Journal of Social Work, 25*(3), 333–348. Doi: 10.1093/oxfordjournals.bjsw.a056183

Porter, L. E., & Alison, L. J. (2004). Behavioral coherence in violent group activity: An interpersonal model of sexually violent gang behavior. *Aggressive Behavior*, 30, 449 – 468. doi:10.1002/ab.20047

Rainbow, L., & Gregory, A. (2009). Behavioural investigative advice: A contemporary view. *Journal of Homicide and Major Incident Investigation*, 5(1), 71-82.

Salfati, C.G. (2000). The nature of expressiveness and instrumentality in homicide. *Homicide studies, 4*(3), 265-293.

Sotoca, A., González, J. L., Fernández, S., Kessel, D., Montesinos, O. &Ruiz, M. (2013). Perfil del incendiario forestal español: aplicación del perfilamiento criminal inductivo. *Anuario de Psicología Jurídica, 23*, 1-8.

Sotoca, A., González, J.L., & Halty, L. (2019). *Perfiles Criminales: principios, técnicas y aplicaciones.* Síntesis Editorial.

Stevenson, E., & Thomas, S. (2018). A 10 year follow-up study of young people reported missing to the police for the first time in 2005. *Journal of Youth Studies, 21*(6), 115 Doi: 10.1080/13676261.2018.1468874

Subkoviak M.J. (1988). A practitioner's guide to computation and interpretation of reliability indices for mastery tests. *Journal of Education Measure*, 25, 47–55.

Tarling, R., & Burrows, J. (2004). The nature and outcome of going missing: the challenge of developing effective risk assessment procedures. *International Journal of Police Science & Management, 6*(1), 16-26. Doi: 10.1350/ijps.6.1.16.34459

Taylor, C., Woolnough, P., & Dickens, G. (2018). Adult missing persons: a concept analysis, *Psychology, Crime & Law*, 1-24. Doi: 10.1080/1068316X.2018.1529230

Todorović, L. M., & Butorac, K. (2017). Evidence-Based Approach to Missing Persons Investigation. *Journal of Forensic Sciences and Criminal Investigation, 5* (5), 14., 5(5), 1. doi: 10.19080/JFSCI.2017.05.555673.

Woolnough, P., Magar, E., & Gibb, G. (2019). Distinguishing suicides of people reported missing from those not reported missing: retrospective Scottish cohort study. *BJPsych Open 5(1),* 1-6.

Table 1. Hypothesised behavioural themes

Theme	Variable	Reference
Intentional-Escape	Having a rebellious behaviour in the family context	1, 2, 3, 4
	Need of space	1, 2, 3
	Avoiding responsibilities in the family context	1, 2, 3
	Having problems in their family environment	1, 2, 3, 4
Intentional-Dysfunctional	Having mobile telephone	10
	Carrying luggage	10
	Having their personal documentation	10
	Having emotional problems	4
	Attempted suicide	1, 6, 7
	Under the influence of alcohol/drugs	1, 6, 7
	Previous suicide threats	6, 7
	Having economic problems	6, 7
	Presence of suicide note	6, 7
	Visiting a symbolic place	1
Unintentional-Accident/Drift	Having a busy lifestyle	2, 4
	Missing their medication	6
	Suffered a health accident	2, 4, 6
	Went to a different place (region, neighbourhood)	2
	Being in a different country from the one of origin	2
	Intentional abandonment of the medication	6
	Travelled on foot	6
Unintentional-Criminal	Meeting with the intimate partner or ex	8
	Being a victim of a crime	2, 4, 5
	Intimate partner separation	2, 4
	Having crime problems	8, 9
	Used transport	9
	Presence of a previous argument	8

Source: 1=Bonny, Almond & Woolnough (2016); 2=Biehal, Mitchell & Wade (2003); 3= Parr, Stevenson, Fyfe & Woolnough (2015); 4=James, Anderson & Putt (2008); 5=Newiss (2006); 6= Gibb & Woolnough (2007); 7=Woolnough, Magar & Gibb (2019); 8=González, Sánchez, López-Ossorio, Santos & Cereceda (2018); 9=García-Barceló, González, Ortigosa & Cereceda (2019); 10= Spanish review of missing persons police records.

Table 2. Sample description

Variable	Category	n	%
Age	Adult	260	76.2
	Minor	81	23.8
Sex	Male	210	61.6
	Female	131	38.4
Nationality	National	268	78.6
	Foreigner	73	21.4
MHI*	MHI background	99	29
	Non MHI background	136	40
Risk level	Limited	93	27.3
	High	248	72.7

*only known in 235 (69%) cases

Table 3. Behavioural composition of themes

Theme	Name	Explanation	Freq. %
Intentional Escape	Family_problems	Having problems in their family environment	**22.3**
	Prev_argument	Presence of a previous argument	17
	Rebel_family	Having a rebellious behaviour in the family context	10.3
	Need_space	Need of space	9.4
	Avoid_resp_family	Avoiding responsibilities in the family context	8.8
Intentional Dysfunctional	Emot_problems	Having emotional problems	**19.4**
	Going_diff_place	Going to a different place (region, neighbourhood)	15.5
	Self-harm	Attempted suicide	11.4
	Influ_alcohol/drugs	Under the influence of alcohol/drugs	10.9
	Prev_suicide_threat	Previous suicide threats	10.3
	Econ_problems	Having economic problems	6.7
	Suicide_notes	Presence of suicide notes	3.2
	Symbolic_place	Visiting a symbolic place	3.2
Unintentional Accident/Drift	Busy_lifest	Having a busy lifestyle	**30.2**
	Foot	Travelled on foot	12.3
	Miss_med	Missing their medication	5.3
	Health_accident	Suffered a health accident	4.7
	Intent_aband_med	Intentional abandonment of the medication	4.4
Forced Criminal	Mobile	Having their mobile phone	**41.1**
	Documentation	Having their personal documentation	39.3
	Transport	Used transport	28.7
	Different_country	Being in a different country from the one of origin	19.1
	Separation	Intimate partner separation	12.3
	Crime_problems	Having crime problems	12.3
	Luggage	Carrying luggage	10.3
	Inti_part_meeting	Meeting with the intimate partner or ex	8.8
	Crime_victim	Being victim of a crime	4.1

Table 4. Dominant theme and demographic characteristics

	Intent. Escape n (%)	Intent. Dysfunctional n (%)	Unintent. Accidental/Drifted n (%)	Unintent. Criminal n (%)	χ^2
Gender					
Male	32 (47.1)	39 (73.6)	17 (77.3)	16 (48.5)	13.222**
Female	36 (52.9)	14 (26.4)	5 (22.7)	17 (51.5)	
Age					
Adult	29 (42.6)	52 (98.1)	22 (100)	26 (78.8)	57.835***
Minor	39 (57.4)	1 (1.9)	0 (0)	7 (21.2)	
MHI					
Yes	9 (18.4)	26 (66.7)	12 (60)	1 (7.1)	30.893***
No	40 (81.6)	13 (33.3)	8 (40)	13 (92.9)	
State when located					
Good health	53 (89.8)	13 (25.5)	7 (33.3)	18 (60)	
Harmed	1 (1.7)	3 (5.9)	3 (14.3)	1 (3.3)	54.430***
Deceased	5 (8.5)	35 (68.6)	11 (52.4)	11 (36.7)	

(*$p<0.05$; **$p<0.01$; ***$p<0.001$)

$df = 3$