Psychological Autopsy Structured on Individual Cases: Methodological Considerations for A New Protocol

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ABSTRACT

Psychological autopsy is an investigative procedure used in cases of "equivocal death" (a situation in which the cause of death is uncertain); it originated in the early 1960s and has since spread to the United States, Europe, and especially Cuba. The initial MAP (Modelo de Autopsia Psicologica) protocol, developed specifically in Cuba, has since evolved into the more current MAPI (Modelo de Autopsia Psicologica Integrado). It is characterized by the use of a retrospective analysis of the deceased's life, with emphasis on risk factors, mental health history and interpersonal relationships.

The Psychological Autopsy is considered one of the most valuable suicide research tools. Information is collected and included in 16 categories (Shneidman) from multiple sources through structured interviews.

Despite its widespread use, the original PA model has several methodological problems that can be overcome through a revision of the protocol from a specialized perspective tailored to each case. The innovative PASIC (Psychological Autopsy Structured on Individual Cases) protocol aims to adapt the psychological autopsy protocol to each case, making it unique and personalized. PASIC, therefore, is based on principles of individuality and its management by a single specialized professional figure. This makes it more effective in identifying which subjects to interview and what type of interview to use. The professional will be able to select the appropriate measures to obtain reliable and effective sources of information. Through a review of the origin and development of the psychological autopsy, this article aims to describe the structural and operational features of the new PASIC method and its advantages over the previous protocols.

Keywords: Psychological autopsy, PASIC, MAPI, investigation, interview

Introduction

Psychological autopsy is a validated, retrospective, and indirect scientific method that is applied when a death occurs whose dynamics are unclear [1]. This technique aims to shed light on cases of uncertainty to objectively define whether one is dealing with a case of suicide, homicide, or accident[2]. Ultimately, together with medico-legal evidence, it allows the cause of death to be clarified and, when possible, confirmed. The psychological autopsy studies and defines the victim's psychological state, emphasizing the importance of the perpetrator-victim relationship, personal history, habits, social relationships, and medical history[1].

PA (Psychological Autopsy) is an example of the advancement of forensic, investigative, and social sciences, as it is one of the most valuable research methods in cases of equivocal deaths (suicide, homicide, natural death)[3].

Thus, a psychological autopsy is defined as a retrospective reconstruction of a missing person's life that includes his or her relationships, habits, personal interests, experience, and, last but not least, medical history[1].

In order to investigate the causes of death, the contribution that can be derived from the study of the crime scene is crucial, although, in cold case contexts, often, finding biological traces (in addition to the near impossibility of the intact existence of the crime scene itself) is particularly complex because of the temporal distance between the date of the incident and the time at which it is investigated. Psychological traces, on the other hand, are not necessarily affected by the passage of time; through a psychological autopsy that includes interviewing individuals close to the victim, if conducted effectively, a great deal of important information can be found[3].

From a historical point of view, the first traces of what would later be defined as psychological autopsy can be found in the United States, in Los Angeles, where physician T.J. Curphey had been commissioned to draw up a protocol to investigate the high number of deaths caused in the area by substance abuse[4]. The work initiated by Curphey was continued and developed by psychologists Shneidman and Farberow in the late 1950s and 1960s, who applied the protocol for the purpose of investigating equivocal deaths where the coroner was unable to determine whether the cause of death was homicide or suicide[5]. The two psychologists' description of the psychological autopsy protocol is as follows: "A retrospective reconstruction of an individual's life that focuses on lethality, that is, those features of his life that shed light on his intentions in relation to his own death, clues to the type of death, the degree (if any) of participation in his own death, and why the death occurred at that time"[5].

One of the most important features of the method applied by Shneidman was to focus mainly on the interpersonal relationships of the deceased, subjecting relatives, friends, colleagues, and even people who had a superficial knowledge of the victim, such as bartenders, waiters, and employees of businesses frequently frequented by the victim to interviews. This approach proved to be decidedly effective, as it made it possible to derive reliable information about the subject's history, lifestyle, and intentions in the period immediately preceding their death. The information obtained from the interviews was then shared and compared with that of the coroner's office, which was responsible for obtaining medical and psychological records. Later, in the 1970s, Shneidman created a 16-item protocol to standardize the collection of information during a psychological autopsy investigation. The items mainly investigated the subject's lifestyle, interpersonal relationships, stress responses, and medical history.

The 16 items are as follows:
1. Information identifying the victim (name, age, address, marital status, religious practices, occupation, and other details)
2. Details of the death (including the cause or method and other pertinent details)
3. Brief outline of the victim's history (siblings, marriage, medical illnesses, medical treatment, psychotherapy, suicide attempts)
4. Death history of victim's family (suicides, cancer, other fatal illnesses, ages at death, and other details)
5. Description of the personality and lifestyle of the victim
6. Typical patterns of victim reaction to stress, emotional upsets, and periods of imbalance
7. Any recent--from the last few days to the last twelve months--upheavals, pressures, tensions, or anticipations of problems
8. Role of alcohol or drugs in (a) the victim's general lifestyle, and (b) their death
9. Nature of victim's interpersonal relationships (including those with physicians)
10. Victim's fantasies, dreams, thoughts, premonitions, or fear in relation to death, accident, or suicide
11. Changes in the victim before death (habits, hobbies, diet, sexual patterns, and other routines)
12. Information related to the victim's outlook on life (achievements, plans)

13. Assessment of intention, i.e., the victim's role in their own death
14. Degree of lethality
15. Reaction of informants to the victim's death
16. Comments, special features, and so on.[5]

This model, used as the standard for all subsequent studies, was modified and expanded by Young in 1992, who drafted a protocol with 26 categories/items[6]. The method to be used to choose whom to interview and after how long gave rise to a heated debate in the scientific community, which led to an attempt in the 1980s to standardize the protocol through guidelines that dictated the most appropriate approach, including the number of professionals conducting the interviews[7]. Absolutely essential was the approach with the subjects who were being interviewed, mainly taking into account the substantial likelihood that they might reject the interview as well as the intervention of the professional assigned to conduct it. The place where the psychological autopsy protocol became most widespread was Cuba, more specifically in Havana, where numerous victims of violent death were studied, thanks to which, later, the psychological autopsy protocol called MAP (Modelo de Autopsia Psicologica) was developed and validated. MAP was later expanded by adding new items and was renamed MAPI (Modelo de Autopsia Psicologica Integrado)[8]. The MAPI is a structured, systematized protocol consisting of 59 detailed items. The protocol was developed by the Ministry of Public Health of Cuba, more specifically, by the Institute of Forensic Medicine of the City of Havana through a number of surveys carried out between 1990 and 1996 on victims of suicide, homicide and accidents. These investigations showed that using third parties for the purpose of acquiring information about a subject's death can be considered reliable. In fact, even today, the psychological autopsy is used in various types of investigations around the world. In the United States, it is often applied in homicide cases and for the study of suicide[8].

The new PASIC (Psychological Autopsy Structured on Individual Cases) protocol was created with the aim of improving the existing PA protocol through the use of an interdisciplinary approach, within which the role of the criminologist is crucial. Thus, the PASIC protocol has the potential to be adapted and modified on a case-by-case basis to maximize effectiveness.

In the application of PASIC, the procedure is entrusted to an individual specialist who, in the specific case, has the most significant expertise in handling the interview with the person. It is essential, for the professional in charge of conducting the interviews, to share the information obtained with the rest of the multidisciplinary equipe.

The application of the innovative psychological autopsy protocol called PASIC (Psychological Autopsy Structured on Individual Cases) has allowed, through the study of eight cold cases which occurred between the 1960s and 1970s in the city of Milan, Italy, to recover biological material retrieved from the crime scene of one of these murders, thanks to a series of interviews conducted with relatives and people close to the victims. The remarkable result was to come into possession of biological material collected directly from the crime scene and concealed for about 50 years. An innovative and modern vision of the application of PASIC includes a unique interpersonal approach between the practitioner and the person being listened to. The approach must be single, with an exclusive relationship between the professional and the interviewee.

Methodological considerations

As it is also the case in medicine, the evolution of protocols, even in different technical-scientific contexts, must be increasingly specialized.

The professional dealing with the psychological autopsy must have specific skills for the individual case. Investigation activities are constantly evolving, with protocols frequently renewed and continuously shared with the scientific community[9].

A new psychological autopsy protocol can, therefore, no longer be tied to codified questions with closed answers.

Particular care must be taken to avoid this type of question, as it can stimulate a piloted response[7].

The application method of the interview is an accurate predictor to be used to obtain a real recollection[10]. Open-ended questions are able to elicit accurate and rich memories compared to closed-ended questions[11]. Some authors have demonstrated the effectiveness of administering open-ended questions. In particular, the accuracy of information was considered by comparing the collection of information immediately and two weeks after the event[11]. The authors themselves confirmed that cued recall (questions with precise demands) is less accurate with the passage of time[12]. Subjective questions should not be asked to the interviewee. Ebbinghaus, through experimental psychology, defined the law of forgetting. Increasing the time interval between the information and its retrieval shows an exponential decay in

accuracy[13]. Decay of recollection was also described by Odinot, who described the decay of recollection from an initial 88% accuracy to 77% accuracy only five weeks after the events[14].

A factor capable of polluting the interview in a significant way is the collection of the interviewee's subjective opinions alone, especially concerning criminodynamics. The relation between the professional and the interviewee must seek out and value, above all, objectively verifiable elements of recollection[11]. If, during the application of the PASIC, third persons of which the equipe was previously unaware are identified as being involved in the case, it is necessary to structure and apply a PASIC protocol dedicated to the new subject to be interviewed. This protocol will be entrusted to a different professional. This evidence is significant since, in the final stages, an assessment of veracity by comparing the information gathered will be necessary. The spread of computer systems in today's society has made it necessary also to assess the information left online, on websites and social networks, by the persons involved in a psychological autopsy interview.

It is, therefore, important to emphasize that even this type of investigation must always be conducted by a single practitioner. It must be made clear that this is not computer forensics but the collection of helpful information to strengthen the relationship between the professional and the interviewee. The use of information gathered from social networks is, however, to be handled with particular care while maintaining a detached 'observer' attitude.

In the PASIC protocol, special attention is given to the collection of the medical and clinical history of the interviewee. In fact, the method includes an anamnestic collection directly from the interviewee. Subsequently, the operator has the task of collecting objectively verified information with the aim of assessing the veracity of the anamnesis and integrating any further useful clinical information. The clinical anamnestic information is mainly aimed at psychiatric diagnoses and the possible presence of such diagnoses in the family. The remote pathological anamnesis will also be collected by means of free interviews that must not involve closed-ended answers in any way. The collection of the anamnesis will have to be carried out more than once since, as it happens in clinical practice, people omit or leave out important details.

The same methodology must also be applied in the social anamnesis, aimed at gathering information on the deceased subject's social and family relationships and interests.

The methodological novelty of PASIC is to include, in the information-gathering phase, not only the retrospective reconstruction of the deceased subject's mental state, social and medical history but also that of the interviewee.

Before we can describe the methods of applying PASIC, we must mention all the scientifically validated methods of verifying information. The practitioner must then identify the most suitable verification methodology for each individual case.

In order to be able to proceed with an adequate collection of information sometime after the event has occurred, the practitioner needs to bear in mind certain notions that are indispensable for conducting an interview[15]. Before starting a PASIC activity, it is necessary to assess the subject's predisposing factors and personal aspects to be interviewed. This collection of information that must precede the start of PASIC is indispensable to highlight predisposing factors for possible false information. Some subjects are, in fact, particularly vulnerable and may be induced during the interview to produce false statements. This vulnerability also affects memory.

When preparing the PASIC protocol, which must be adapted to each individual case, the following aspects must be investigated in the pre-operative phase: easy suggestibility, presence of psychopathological forms, personality disorders, and mental retardation[11]. The age of the subject undergoing PASIC should also be taken into account as a risk factor in the collection of false information. In fact, at a young age, it is more frequent that the interviewee can provide information that is to their advantage, especially in the short term[16].

The professional must, through their expertise, verify, whenever possible, the criteria of extrinsic and intrinsic reliability of the subject heard. The assessment of extrinsic reliability is obtained when the witness's recollection can be confirmed by external evidence that can be used as objective verification[11]. Confirmation will therefore take place with information that is external and independent of the subject.

Typical objective findings may be the verification of messaging, GPS, or other systems that can be explored using computer forensic principles. Whenever possible, the operator should therefore use any useful system for objective verification of the information. If this method is not applicable, the information obtained should still be taken into account. In this case, an intrinsic reliability check may be performed. The protocol will then take into account all the characteristics of the narrative. Characteristics such as, logic, coherence, circumstances in time and space, and richness of

detail will have to be identified. The structure of the narrative can also be assessed using the criteria of the C.B.C.A. technique (Criteria Based Content Analysis), an empirical technique that has been shown to distinguish true stories from stories with inconsistent interference[17]. This technique includes 19 qualitative aspects of the narrative to be verified:

1. logical structure
2. unstructured production
3. quantity of details
4. placing in context
5. descriptions of interactions
6. reproduction of conversations
7. unexpected complications
8. unusual details
9. superfluous details
10. misunderstood but correctly reported details
11. related external associations
12. description of subjective mental state
13. attribution of mental state to the accused
14. spontaneous corrections
15. admission of lack of memory
16. the emergence of doubts about own testimony
17. self-deprecation
18. forgiveness of the accused
19. detailed characteristics of the harassment

These criteria are to be considered a tool to support the assessment of intrinsic reliability[17].

Another methodological feature is the verification of accuracy, intended as a recollection of what the subject actually perceived at the time of the events. The fundamental principles described so far are always to be applied as a basic premise for the validity of the PASIC. Another method that can be used for the assessment of intrinsic characteristics is Reality Monitoring[18]. This method makes it possible to identify structural differences resulting from the recollection of direct or imagined perceptions.

There are eight such evaluative dimensions[18]:
- clarity of memory
- sensory aspects
- spatial information
- temporal information
- emotional aspects
- reconstructability of the story
- realism
- cognitive operations

The use of the aforementioned verification tools should be considered evaluative criteria of intrinsic reliability to be used only as support in the application of PASIC.

The PASIC activity verification methodology also includes a checklist for assessing sensory-type memory. A number of authors have defined a set of checkpoints useful for this purpose. Boyacioglu and Akfirat defined the following checkpoints[19]:

- vividness
- accuracy beliefs (sure, uncertain)
- details of place
- sensory details
- accessibility (the ease with which it comes back to mind)
- sharing
- first-person perspective
- third-person perspective
- emotional valence
- emotional intensity
- emotional distance
- details of time
- visceral reactions

Another checklist useful for assessing the sensory nature of the interviewee's recollection was defined by Lanciano. In this case, specificity and confidence are assessed through a score[20].

A fascinating and innovative aspect is the possibility of verifying the testimony by intrinsic reliability criteria such as congruence between narration and facial expressions. Such verification confirms how considerably the listening technique is evolving, which today allows the professional, only in some cases, to reevaluate video images of the interview that took place separately. During a PASIC activity, this verification is possible due to the presence in the city area of broad coverage of cameras positioned for security reasons. In this case, FACS (Facial Action Coding System) may be applied. This technique was developed by Ekman, who identified specific action units helpful in assessing the consistency of the information collected[21]. With an even more complex method, it is possible to apply the system called E.M.F.A.C.S. (Emotion Facial Action Coding System), which allows the reconstruction of the relationship between emotionality and collected information[22]. With the control systems and methods mentioned above, it is, therefore, possible to reinforce PASIC with a scientifically validated procedure for assessing the congruity between expressed emotion and collected statement. It must also be considered that the practitioner applying PASIC will have to evaluate and analyze response latency. Indeed, the time between the end of the question and the end

of the response is diagnostic of the truthfulness of the response itself [20].

It is imperative that the professional describes in the conclusions of their activity the characteristics of the interviewee. These conclusions should include in detail the rationale supporting the principles of intrinsic and extrinsic reliability and,

not least, accuracy.

In practice, any assessment of trustworthiness and statements has objectively verifiable elements. Being able to verify only one part of the account does not mean that the accuracy of the entire activity is worthless.

Inferential assessment of trustworthiness it is necessary to evaluate:
Accuracy corresponding to the precision of recollection, which in the case of intrinsic reliability cannot be directly verified
Intrinsic reliability, which consists of estimating the accuracy of recollection indirectly based on the structure of the narrative
Extrinsic reliability, which corresponds to a set of evaluative procedures aimed at verifying the accuracy of recollection through external objective feedback
credibility, which consists of an assessment of the witness's propensity to produce accounts (high credibility) or to lie or be inaccurate (low credibility). This assessment must take into account motivational and personological aspects of the witness, which have nothing to do with the witness's narrative

Tab. 1

An interview performed by a single professional who can achieve and maintain an excellent empathic relationship with the interviewee is essential. The single interviewer will thus avoid the possibility of polluting the information collected. In fact, in cases where the psychological autopsy was entrusted to more than one professional, different and sometimes contradictory information was often collected. Another advantage of entrusting the conduct of a psychological autopsy to a single practitioner is that this way, it will be easier to protect the information that the interviewee provides.

The new PASIC protocol includes six well-defined interview macro-areas that are useful as guidelines in the listening procedure[23].

- Cognitive area aimed through open questions at collecting general information (personal, social, socio-cultural, environmental): early compliance between interviewee and operator.
- Area aimed at an open-ended interview to obtain generic information through the interviewee's memories (memory of the criminal event). In addition, there is the obtaining of spontaneous information in favor of the investigation.
- Area aimed at obtaining increasingly specific information about the nature of the

relationship between the interviewee and the victim (family relationships, friendships, professional and casual acquaintances...). Purpose: early empathy between the parties.
- Area dedicated to a description of the criminal event and a subjective version of the interviewee regarding the crime always and only through open questions.
- Area aimed at identifying the means used (weapons) in the criminal event through the search for suggestions or opinions: personal opinion of the interviewee in relation to victim/weapon/author of the events.
- Should a third party to be interviewed emerge from the narrative, methods, and purposes will be the same as PASIC but with a different operator.

It is essential to clarify that a PASIC psychological autopsy protocol can never be applied to a minor subject, who, therefore, cannot be subjected to interviews.

Let us summarize the methodological characteristics that are indispensable to be able to obtain adequate information for a reconstruction of the cause of death: simplicity and quickness of application of the protocol, protection from external suggestion, high confidentiality between the parties, and a high guarantee of confidentiality.

At the end of the activity, verification and application of the scientific validation criteria as previously described should be performed. The verification methodologies should be detailed and justified in the conclusions described in the final report of the activity.

The professional figure of the criminologist, who also possesses clinical skills, and the psychologist, allows for optimal application and management of PASIC because the professional is a non-authoritarian, confidential figure capable of maintaining a particularly fruitful relationship between the parties.

Preliminary assessment of personal characteristics

Many authors have highlighted the vulnerability and possibility of being influenced by external pressures that the professional must avoid[24]. Vulnerable individuals may release false information, non-genuine memories, or emotional processing of the information they have.

Clinical psychology has highlighted some characteristics peculiar to vulnerable people[25].

Suggestibility: Individuals who demonstrate particular insecurity in social situations turn out to be predisposed to a statement that sometimes does not correspond to reality. Suggestibility is especially evident in cases where the professional makes his authority perceived. Suggestibility also interferes with memory reliability. The mechanism of memory impairment is due to low self-esteem and often unmanageable levels of anxiety.

Psychopathologies: Subjects with high anxiety or depression are more at risk of providing information that does not adhere to reality[26].

Vulnerability is also present in subjects with delusional traits or with psychiatric diagnoses of different types. During PASIC, the professional should therefore be careful to avoid becoming a source of high stress.

Personality disorders: Avoidant, dependent, and obsessive-compulsive personality disorders are among the major influential factors in information gathering. The feelings of inadequacy and fear that the interviewee might perceive influence the genuineness of the information. When faced with dependent personality disorder, it is necessary to prevent the subject is interviewed in the presence of the person of reference for him. This pathological attachment or dependence between two subjects cannot in any way interfere with the gathering of information.

Age of the subject: one of the most relevant factors in vulnerability is determined by the age of the subject being listened to. Young people are often vulnerable because of immature decision-making abilities. These subjects seek to bring short-term advantages for themselves. Another important element is that these subjects underestimate the long-term consequences brought about by false statements[16].

Anaffective behavior: also, in this circumstance, it is necessary to take into account the possibility of statements that somehow lead to an advantage for the interviewee. Especially in this situation, it is necessary to pay attention to the fact that the person might premeditate to involve third parties unrelated to the facts.

Assessment of the reliability of visual recognition

During a PASIC activity, the interviewee sometimes reports being able to visually identify specific details or subjects in the context of a crime scene. Distance is the first feature to be carefully identified and, when possible, verified. The 15-meter rule has been described in the literature[27]. This empirical value of distance has been identified as the limit for reasonable credibility of recognition.

Exposure time is also a key factor to be evaluated. Exposure time is described in the literature as not less than 15 seconds for judging visual recall as reliable[27].

Ethnicity is described in the literature as an element of higher reliability in recognition. The phenomenon termed "other race effect" refers to the relationship between ethnicity and recognition accuracy[28].

The presence of distractor subjects also affects the reliability of recognition.

Discussion

The purpose of this study was to propose an innovative and specialized psychological autopsy protocol adapted for each individual case. The structure of PASIC originates from the desire to update the previous MAPI. Psychological autopsy originated as a scientific method to investigate death cases whose dynamics are unclear. Previous psychological autopsy protocols, developed in the United States and later the MAP and MAPI in Cuba, are based on the use of standardized items that require closed-ended responses. This type of response often risks leaving out important information that could be useful for investigation[23]. To date, the use of closed-ended questions has proven ineffective and unfavorable in psychological autopsy activity. Therefore, as far as possible, the interview should be unstructured, leaving the practitioner free to ask what they deem most appropriate for any given subject[11]. For this reason, in an age of increasing specialization in

technical and scientific subjects, we argued that it is advantageous to proceed with the drafting of new guidelines dedicated to psychological autopsy.

It is necessary to maintain a set of general guidelines that can later be adapted to each individual case. The PASIC protocol, unlike MAPI, is divided into cognitive areas rather than items. Fostering open-ended responses with "one-to-one" management between the operator and interviewee has numerous advantages. The individual operator is able to maintain a confidential and empathetic relationship, which is essential in the information-gathering phase.

Other interferences have consistently been shown to be unfavorable and sometimes pollute the veracity of the information[7]. Entrusting a single operator with the conduct of interviews facilitates the creation of a relationship of trust between the interviewee and the operator. This aspect has often proven to be critical to the proper conduct of a psychological autopsy. During a PA activity, it is important to identify the best strategy for gathering information. In fact, as much as possible, it is necessary to avoid asking respondents to give subjective opinions about events that occurred[6]. The practitioner should focus on gathering as objectively verifiable information as possible. In the event that objective verification is not possible, the opinions provided by interviewees will take on less value. However, unverifiable information will be valuable in advancing the investigation. All information that the practitioner comes into possession of should be subjected to intrinsic and extrinsic reliability verification. Intrinsic reliability verification means the estimation of the accuracy of recollection conducted indirectly based on the structure of the narrative. Extrinsic reliability assessment, on the other hand, corresponds to a set of evaluative procedures aimed at verifying the accuracy of recollection by means of external objective feedback[11]. It is also essential to assess the accuracy and credibility of the recollection: accuracy corresponds to the precision of the recollection, while credibility is the tendency of the respondent to produce truthful or untruthful accounts. The practitioner, when interviewing a subject, must also assess their personological characteristics, mainly, among them, suggestibility, personality, and any psychopathologies, all of which can significantly affect the production of accurate information[29].

In the modern age, the information people leave online, on websites and social networks, which can help the practitioner in their assessment, cannot be ignored[30]. These aspects will be evaluated in parallel with the interviewing

activity. In this case, and only for the verification of computer information, the collaboration of an appropriate professional will be allowed.

In the PASIC protocol, it is beneficial to have the contribution that an operator with criminological expertise can offer, possibly also associated with medical or psychological competence.

In the future, it will certainly be favorable to be able to integrate the PASIC protocol into investigative, technical, and scientific activities with a collaborative and fruitful spirit among the different skills.

The research group to which the authors of this article belonged was able to verify the effectiveness of different psychological autopsy protocols in the field during the study of numerous cold cases (12) that occurred in Italy during a period from the 1960s to the 1980s. The use of the previous MAP and MAPI models, which required the application of a structured protocol and closed-ended interviews, led to the need to create a new model of psychological autopsy with less rigid rules that could be adapted to the unique aspects that characterize each investigation in suspicious death cases. In fact, closed-ended interviews in many cases made investigations more complex, as the interviewees were often inclined to leave out or confuse crucial information.

In 2021, the new PASIC protocol was published, the use of which had led to the collection of important information regarding a number of cold cases that occurred in Milan in the 1970s. In particular, during a psychological autopsy interview conducted with this protocol, the interviewee stated that they had taken and concealed biological material from the scene of a crime that had occurred more than 50 years earlier, which confirmed the advantage of using a semi-structured interview over that provided by previous protocols.

Conclusions

In a case study since 2014, our working group applied the new PASIC psychological autopsy protocol.

PASIC was applied in the study of 12 cold cases with homicides that occurred in a period between the 1960s and 1980s in Italy.

PASIC was uniquely adapted to each cold case with unique interview characteristics.

The advantages of PASIC over MAPI are mainly the reduction of the possibility of contamination of the information and the possibility of subjecting the information obtained

to an evaluation of accuracy, extrinsic or intrinsic reliability, and credibility.

In addition, the advantage of being able to apply a specific protocol to each individual case quickly was highlighted.

Sharing the PASIC in the context of a team activity proved particularly fruitful. The management of the PASIC has always been entrusted to a single professional. This strategy has led to the realization of a beneficial relationship of trust between the parties.

A significant result was achieved in one of the 12 cold cases studied, where thanks to the application of the new PA protocol, a person related to the victim revealed, after more than 50 years, that she had secretly collected and hidden biological material directly from the crime scene.

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