Risk on Elder Abuse and Mistreatment - Instrument: Development, psychometric properties and qualitative user-evaluation

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Risk on Elder Abuse and Mistreatment - Instrument (REAMI): Development, psychometric properties and qualitative user-evaluation

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Statement

The authors of this paper titled “Risk on Elder Abuse and Mistreatment Instrument (REAMI): Development, psychometric properties and qualitative user-evaluation” that is being submitted to Educational Gerontology state that this paper is not published elsewhere neither is it being submitted for publication simultaneously to any other journal.

Abstract

Prevalence data of elder abuse from social and health services only present a tip of the iceberg. A large amount of situations of abuse is left undetected. Professionals often lack knowledge and skills on the topic of abuse. Consequently, this paper focuses on supporting professionals to prevent and assess elder abuse by developing and testing the Risk on Elder Abuse and Mistreatment Instrument (REAMI), using a mixed method design. Quantitative data from a widespread screening among 1920 older clients of home care are analysed with exploratory and confirmatory analysis. In addition, 24 professionals who have used the REAMI have been qualitatively interviewed about their practical experience and critical reflection on the instrument and its use. These interviews were transcribed and content analysed. Findings provide evidence of good internal reliability and internal validity of the REAMI and its three dimensions: 1) risk factors of the older person, 2) risk factors of the environment, 3) signals of abuse and mistreatment. Users report an increase of knowledge and awareness among staff, satisfaction with the possibilities for prevention and the user-friendliness and brevity of the REAMI. However, some users are missing a follow-up protocol: what to do when risks are assessed? In the discussion, the argument is developed that the REAMI can be used to examine risk at elder abuse, although an overarching protocol to support prevention and intervention which embeds the detection instrument is needed.

Keywords: Elder abuse; mistreatment; screening; detection; prevention

*Running head***:** Risk on Elder Abuse and Mistreatment Instrument (REAMI)

Introduction

In the last few years, the issue of abuse and neglect against older people has gained importance at European and national levels. The World Health Organization (WHO) and the International Network of the Prevention of Elder Abuse (INPEA) have recognized the abuse of older people as a significant global problem (Bennett, Levin & Straka, 2002). Elder abuse has been associated with a number of negative consequences such as reduced quality of life (Lang et al., 2014), negative health outcomes (Fisher, Zink & Regan, 2011), suicidality (Olofsson, Lindqvist & Danielson, 2012), and a greater risk of mortality (Dong et al., 2009). Prevalence rates of elder abuse in the community range from 0.8% to 41.6% (Cooper, Huzzey & Livingston, 2007; De Donder et al., 2011a; De Donder et al., 2013), and an increase in the aging population will result in an increase of older people at risk of elder abuse and maltreatment.

Although elder abuse has important and profound consequences, only a small proportion of victims call for help. One of the main reasons is the reluctance of older people to report abuse due to feelings of powerlessness, shame or guilt (Tamutiene et al., 2013). Consequently, effective prevention programmes with awareness and education tools and resources for professionals, to screen and detect elder abuse are needed (Burnett, Achenbaum & Murphy, 2014; Pillemer, Mueller-Johnson, Mock, Suitor & Lachs, 2016). The lack of a well-designed, valid and widely available detection and screening instrument may leave many cases unnoticed (Crome et al., 2014). An instrument that could be used to identify elder abuse in the home environment, in an early phase, is needed to give opportunities to educate and support professionals in screening and detecting elder abuse, and consequently to take preventive actions for at-risk groups (De Donder, 2014).

Although a number of instruments exist, more research is needed to learn how to fine-tune assessments and screening tools, and to improve initial diagnosing and accuracy in finding (Imbody & Vandsburger, 2011). Ideally, a tool (1) includes both signs of abuse (e.g. suspicious bruises) as well as risk factors of abuse (e.g. history of violence, relationship problems between older person and possible perpetrator) (Cohen, 2013), (2) provides both shortness and thoroughness, enabling accurate assessments to be completed in time-demanding work environments (Imbody & Vandsburger, 2011),

(3) can be used by informal carers, by formal carers (medical and non-medical), and health and social services, (4) pays attention to different types of perpetrators (De Donder et al., 2011b; Naughton et al., 2010), (5) refers to the physical, psychological and the social environment of older people, (6) and provides information on the psychometric properties of the instrument (Ploeg, Fear, Hutchison, MacMillan & Bolan, 2009). In response to this lacuna, this article aims to make a methodological contribution by developing, testing, and validating the Risk on Elder Abuse and Mistreatment Instrument (REAMI).

Elder abuse: need for detection and prevention

Differences of opinion on the definition of elder abuse still exist (Brownell, 2014; Penhale, 2008) even to an extent that some might say that *"final and authoritative definitions of elder mistreatment are unlikely to be achieved"* (Dixon et al., 2010, p.418). Notwithstanding the definition one uses, elder abuse is most often conceptualized as a multi-faceted phenomenon. Definitions have paid attention to: the types of abuse (e.g. physical, psychological, neglect, financial, sexual abuse and violation of personal rights), who does the abusing (perpetrator descriptions), who suffers from the abuse (victim descriptions), the relationship between the victim and the perpetrator (mutual trust and dependency of the victim), the intention (intentional or unintentional), whether the mistreatment may be an act of commission (abuse) or omission (neglect), and where it happens (e.g. domestic violence or institutional settings) (Brownell, 2014; De Donder et al., 2011a). For example, one often-recurring definition refers to elder abuse as "a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person" (Action on Elder Abuse UK, 1995, p.5; WHO, 2002, p.3).

More than half of the victims of elder abuse do not talk about nor report the abuse (Tamutiene et al., 2013). The most common reasons for not reporting an experience of elder abuse are "considering the incident as being too trivial" (71.8%), "distrusting the ability of somebody to do anything about it" (56.2%), "not wanting to involve somebody" (50.3%), but also "not wanting that the perpetrators is sent

to prison" (22.8%) and "being afraid the perpetrator might take revenge" (20.1%) (Tamutiene et al., 2013). As older people are reluctant to report abuse, only a small proportion of these individuals are presently known to protective/social services. Oosterlee, Vink and Smit (2009) estimate that only 20% of victims in the Netherlands are known to one or more organizations, whilst O'Keeffe et al. (2007) estimate that only 3% of cases in the UK are known to the agency for adult protection and social services. This indicates a clear need to screen for factors that put older people at risk for abuse, to identify and detect elder abuse at an early stage (Burnett et al., 2014). The premise of screening and detection interventions is clear: elder abuse remains unknown until the problem is brought to light (Pillemer et al., 2007). In their recent overview of global issues in the field of elder abuse Pillemer, Burnes, Riffin and Lachs (2016, p.S200) conclude that "*the greatest gap in knowledge about elder abuse lies in the area of prevention"*. The most pressing need in the field of elder abuse is to make interventions that have the potential to prevent elder abuse more effective and evidence-based. Health care providers might play an important role in recognizing and reporting abuse (Hess, 2011).

Existing screening and assessment instruments

Several screening instruments for detecting (risks of) elder abuse have been developed, but almost exclusively in the US (Perel-Levin, 2008). Already in 2001 Anetzberger concluded that risk assessment instruments lack important qualities (such as accurateness, sensitivity and reliability) to be widely adopted. More than ten years later Imbody and Vandsburger (2011) ascertained very little progress. In their literature review they described existing elder abuse assessment tools: e.g. Conflict Tactics Scale, Brief Abuse Screen for the Elderly, Elder Assessment Instrument, Elder Abuse Diagnosis and Intervention Model, Indicators Of Abuse screen, E-IOA: Extended Indicators Of Abuse screen, and EASI: Elder Abuse Suspicion Index. They conclude that we still lack an instrument that fulfils the need for thoroughness, user-friendliness and multidisciplinarity. In reviewing the literature, we can deduce a number of criteria on which a good elder abuse risk assessment instrument should comply.

First, as identification of elder abuse is complex, an effective screening instrument should try to comprehensively assess both signs of abuse (e.g. suspicious bruises, transfer of property) as well as risk

factors of abuse (e.g. history of violence, relationship problems between older person and possible perpetrator) (Cohen, 2013).

Second, some questionnaires are quite long: e.g. the Indicators Of Abuse Screen takes 2 à 3 hours and do not comply with current time limitations in health and social care. Health and social care are in need of short and user-friendly instruments that can be completed in busy practice settings. In addition, a number of screening instruments should be completed by high-skilled professionals. For administering the EASI for instance a physician is needed. An instrument that can be applied by a wide variety of professionals (and possibly also volunteers) in multiple and distinct settings such as medical offices, hospitals, social services agencies, police departments or community home settings would be useful. While assessments are available that are either brief or comprehensive and in depth, there seems to lack a tool that comprises both (Imbody & Vandsburger, 2011). Fulmer, Guadagno, Bitondo dyer and Connolly (2004) recommend distinguishing instruments that can be used for brief, rapid screenings and those that can be used for more detailed diagnostic assessments.

Third, an instrument often incorporates only one dominant theoretical paradigm (Perel-Levin, 2008), thereby focusing on only one type of perpetrator. The widely used Caregiver Abuse Screen (Reis & Nahmiash, 1995) for instance only takes the caregiver model into account, thereby ignoring the autonomy of the older person or the possibility of non-dependent older people to experience abuse. Different types of perpetrators are possible. The literature reports that in most cases of elder abuse in the community the perpetrator is the spouse or current partner. In their UK Study of Abuse and Neglect of Older People, O'Keeffe et al. (2007) have found that 51% victims of abuse reported their partner as perpetrator of the mistreatment. In addition, the older victim's daughter, son or other relatives are also possible perpetrators (De Donder et al., 2011b; Naughton et al., 2010; O'Keeffe et al., 2007). Furthermore, professional caregivers in the home setting, such as domiciliary and health care workers, can be found as perpetrators (e.g. De Donder et al., 2011b; Naughton et al., 2010).

Fourth, an instrument should include the social environment. Since perpetrators are people who are familiar with the older person and enter their homes, and since many of the victims of severe elder abuse return to the environment in which the abuse occurred (Lee, Avila, Tanouye & Joseph 2011), there is a clear need to also include the social context of the victim in a measurement instrument on the

risk of elder abuse.

Finally, the psychometric qualities of the instrument should be tested. In an overview of European prevalence studies, De Donder and colleagues (2011a) conclude that studies hardly ever use a substantiated operationalization. Hardly any of the publications discussed objectivity, reliability, and validity of the measurement instrument(s), and statistical information is scarce. A poor measurement tool may lead to an inaccurate estimation of the extent of elder abuse, which in case of effectiveness studies is crucial. Consequently, measures should always provide information on the psychometric properties of the instruments used (Ploeg et al., 2009).

Therefore, this paper seeks to contribute to the methodological literature about the screening and detection of elder abuse by developing and evaluating the Risk on Elder Abuse and Mistreatment Instrument (REAMI); by (1) determining whether the items represent one or more underlying structures; (2) testing the internal validity; (3) testing the internal reliability of the scale; and (4) critically evaluating the user-friendliness, the practical experience and use of the instrument.

Methods

Phase 1: Quantitative Survey

The data used in the present study were collected in Spring 2012 in cooperation with Familiehulp vzw, the largest home care organization in Flanders (i.e. the Dutch-speaking part of Belgium). All home carers from Care Region 3 (Antwerp and Brussels) were instructed to assess their clients aged 55 years and older, using a standardised survey instrument. In total 1922 clients were assessed. 2.9% were aged between 55 and 64 years, 13.5% between 65-74 years, 45.5% between 75-84 years and 38.1% clients was 85 years and older. 69.6% of clients were women. 27.6% clients lived in (semi)rural settings, 25.4% in a semi-urban community and 47.0% clients lived in an urban neighborhood.

In the REAMI-questionnaire, the professional is asked in what way they have the feeling the proposed 22 statements apply to their client. Answer categories ranged from completely disagree (1) to

completely agree (4). The 22 items were developed based on literature, experience from previous studies and three rounds of consensus meetings with experts (with academic experts, professionals from the Flemish Supporting Centre on Elder Abuse who are dealing daily with elder abuse and professionals from health care organizations).

The concept of perpetrator was left open for interpretations in the questions and referred to as 'key figure'. The concept of key figure is explained in the questionnaire as follows: Older people (in particular in a caring context) often have a key figure. This might be for example the partner, one of the children (in-law), a neighbour or a professional caregiver. A key-figure is someone who is very close with the older person and has a close bond with him/her.

The analytic strategy consisted of three steps. First, preliminary analysis comprised data screening to identify possible response patterns and outliers, missing data analysis to avoid jeopardizing the overall construct validity of the scale, assumption testing and the analysing of sampling adequacy. Second, the underlying structure of the instrument was examined using Exploratory Factor Analysis (EFA) and the multidimensionality of the scale through a principal component analysis with a Varimax rotation. A combination of measures was used to assess the fit of the derived factor(s) (Field, 2009). First, the criterion that a factor should have an eigenvalue of 1 or more was used to decide the number of dimensions. Also, the factor needed to be constituted of items with high factor loadings (>0.5) on a single factor (Field, 2009). Third, SPSS AMOS 22.0 was used for first-order Confirmatory Factor Analyses (CFA) to assess how well the data fitted the hypothesized structure. In the hypothesized model error terms were not allowed to correlate. As the method of estimation, Maximum Likelihood (ML) was used. Several indices for 'goodness of fit' were calculated to assess to what extent the proposed model did fit the data. The statistics reported in this paper are: the Tucker-Lewis Index (*TLI*) and the Bentler's Comparative Fit Index (*CFI*). Values greater than 0.90 are traditionally been used to indicate acceptable model fit, although some authors suggest a cut-off of 0.95 as more appropriate (Carlson & Mulaik, 1993). Since an exact fit is neither expected, nor very realistic, the Root Mean Square Error of Approximation (*RMSEA*) reflects the 'badness-of-fit' of the model while taking the number of degrees of freedom into account. *RMSEA* values above .10 are considered as unacceptable. A value of $\leq$.08 indicates a good model fit with the data (Hair, Black, Babin, Anderson & Tatham, 2007). Finally,

internal consistency of the scale was assessed through Cronbach alpha coefficients. A scale was considered adequate if the alpha value was at least 0.70.

Phase 2: Qualitative interview

After the validation study of the REAMI, several social and health care organisations started to use the instrument in daily practice. In 2013-2014 24 professionals who used the REAMI in their organisation have been individually interviewed to measure the experience, satisfaction and user-friendliness of the REAMI. Participants were randomly selected to capture a diverse range of experiences. Recruitment ceased when reaching theoretical saturation, the point in which little new information was arising from the interviews. Participants were given information about the study, as well as the assurance of confidentiality and anonymity. Interviews were arranged at the participant's convenient time and place. 5 respondents were men, 19 were women. Respondents' age ranged between 27 and 60. 14 respondents worked as home carer, 10 respondents were social workers or coordinators of home care organisations.

We developed a semi-structured interview guide based on a literature review, and consultation with the Flemish Supporting Centre for Elder Abuse and Familiehulp vzw. All interviews were audio-recorded and transcribed verbatim. Data were analysed using MaxQDA software package for qualitative data management. Interviews were analysed with the use of thematic content analysis. To enhance the analytical framework and to enrich triangulation the labels were discussed amongst two principal researchers.

Results

Risk on Elder Abuse and Mistreatment Instrument: Psychometric properties

Exploratory Factor Analysis revealed three underlying dimensions with an eigenvalue greater than 1, indicating that all items assessed 3 components that we labelled "risk factors of the older person" (6 items), "risk factors of the environment/possible perpetrator" (10 items) and "signals of elder abuse" (6 items) (see table 1). The analysis showed no items with factor loadings lower than .49. Next, a

reliability analysis was used to evaluate the internal consistency and the total explained variance. Examining reliability, Cronbach's alpha for the three scales were very acceptable (respectively 0.74, 0.84, 0.89). The total explained variance ranged respectively from 44.2% over 50.4% to 70.0%. As the results of the exploratory factor analysis were shown to be satisfactory, a confirmatory factor analysis was performed on all three measurements. The results of this confirmatory factor analysis are shown in Table 1 and 2.

The Confirmatory Factor Analysis (CFA) was hypothesized to validate the solution that was found in the exploratory factor analysis on the previous sample. Our hypothesized three-factor model showed a good fit to the data, both when examining the three dimensions of the REAMI each in a separate model as when examining the three dimensions together in one model. In the total model, factor loadings ranged from .41 to .81. The goodness of fit estimates were above the necessary cut-offs (see table 2). Based on these measures of overall fit, there is evidence that the hypothesized model of REAMI is a good-fitting model (Carlson & Mulaik 1993; Hair et al. 2007).

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Risk on Elder Abuse and Mistreatment Instrument: Qualitative User-Evaluation

First point of discussion was the opinion of the participants on the REAMI. Most participants described using the REAMI as a positive experience. Filling in the questionnaire did not take much time (i.e. for some 2 à 3 minutes, for some 10 à 15 minutes), which was experienced as positive because all professionals expressed to have a lot of work, and not to have time for long questionnaires. Filling in the instrument went particularly quick when the professional knew the living conditions of his client. On the other hand, when the older person was a new client, the REAMI could not be used. To rate most of the items, they felt they needed to know the client and its situation. Respondents rated the instrument as '*realistic'*, '*to the point'*, '*well written'* and '*clear'*. Some respondents expressed to have difficulties in scoring some items. Items that were experienced as difficult to assess were for example: history of

violence in the family, financial problems of the older person, signals of emotional abuse and signals of sexual abuse. In trying to overcome these difficulties, several home carers stated they cooperated with other colleagues: "*If I had a client where several of my colleagues went as well, then we consulted each other: what do you think? I found that particular helpful… The one notices other things than the other.*"

Second, participants were questioned about the added-value of using the REAMI. Several professionals told their knowledge on elder abuse had increased and they became more alert for signals of elder abuse. They expressed to pay more attention to the living conditions of the client, the contacts with the family and the informal carers. A domestic helper expressed it as follows: *"There are always abusive situations, but actually you don't always realise that. Since you are visiting that family already for such a long time, you consider the situation as normal. But if you stop and reflect about it… when I used the questionnaire I realised: Actually, this is not normal."* For some professionals, the REAMI was a first encounter with the topic of elder abuse. For others it enlarged their perspective and they realized that elder abuse signifies more than just physical abuse: *"My eyes have opened: Ok, it is not because they (i.e. older persons) are well supported, have the necessary professional care, that there is no risk anymore. Just because of this large dependency there is a risk, but I never thought about that." (home care professional).* In addition, using the REAMI encouraged the home carers to report risk of elder abuse to their coordinator. Respondents expressed to experience following barriers in reporting elder abuse in the past: fear that the older person stops the care, fear for the negative consequences the older person might experience as the older person is dependent from the perpetrator, but also lack of evidence, disbelief among other caregivers (mainly general practitioners), the subtlety of many forms of abuse and mistreatment, and insufficient knowledge about the topic. Using the REAMI encountered several of these barriers, and home carers felt supported by the instrument to take the matter to their superiors. It was also emphasized that they reported the risk of elder abuse, and not elder abuse per se. A coordinator of VLOCO made a comparison with a thermometer, and expressed it as follows: "*The REAMI is like a thermometer: if you feel sick, you use a thermometer to measure your fever. You don't really know which illness you have, but you know: there is something the matter and action should be undertaken. And the REAMI uses the same principle. It is an aid, a tool.*" Some suggested the idea to fill in the REAMI by several caregivers from several disciplines. None of the respondents had done this

so far, but were interested to find out what the results would be if the REAMI was scored by a home carer, nurse and general practitioner.

A third point of discussion arose when talking about "what after filling in the REAMI?". Most organizations discussed the scores of the REAMI in their team. Some organizations developed instructions what their employees should do when a high risk for elder abuse was assessed, but most respondents were left in the dark. The responsible of a home care organization reflected as follows: *"We believe we should do something, but we don't know what. The REAMI confirms our feelings that something is going wrong. But what then?"*

Discussion

The focus of the present study was methodological. The article starts with describing the lack of an appropriate risk assessment instrument for elder abuse. Before being able to pro-actively screen for elder abuse, a solid detection instrument has to be correctly validated. In order to do so, this article examines the validation of the Risk on Elder Abuse and Mistreatment Instrument. This 22-item instrument fulfils five criteria as established in the literature review. The REAMI includes signs of abuse as well as risk factors of abuse (1), is evaluated by the users as a short and to the point instrument which can be completed in time-demanding work environments (2), the concept of perpetrator is left open in the questions and referred to as 'key figure' (3), refers to the physical, psychological and the social environment of the older person (4). In examining the psychometric properties, an exploratory analysis revealed three factors: risk factors of the older person, risk factors of the environment/possible perpetrator and signals of elder abuse. The confirmatory factor analysis has confirmed this three-factor model with excellent goodness of fit estimates. Based on these measures of overall fit, there is evidence that the hypothesized model of REAMI is a good-fitting model (5). To conclude, we could support the use of the REAMI as assessment instrument for the detection of elder abuse in the domestic setting.

A number of implications can be drawn from the findings, including suggestions for implementation, elder abuse awareness raising and health promotion practice. One of the advantages of the REAMI, as expressed by the experts and users is the briefness and clarity of the instrument whereby

it could be used by domestic helpers (i.e. professionals with lower education than the typically targeted screening group such as physicians or social workers). Although high-quality evaluations of prevention programmes on elder abuse are often lacking (Pillemer et al., 2016), evaluations of education among professional carers showed promising results such as an increased knowledge of elder abuse (e.g. Richardson, Kitchen & Livingston, 2002), increased recognition and reporting (Teresi et al., 2012) and a decrease in psychologically abusive behaviour from staff to older persons in their care (Hsieh, Wang, Yen & Liu 2009). The results of the qualitative interviews clearly indicated that the short training, but mainly the concrete use of the REAMI by formal caregivers contributed to a better understanding and recognition of elder abuse among formal caregivers. Conversely, the results clearly highlighted that implementing the REAMI (or another risk assessment instrument) in an organization was not sufficient, but such implementation needs to be embedded in a strategy. These findings have been endorsed by Krueger and Patterson (1997) who identified the following needs among physicians in order to deal with elder abuse: information on where to call for help, protocols to respond to abuse, guidelines about confidentiality etc. The use of the REAMI is not free of obligations, but requires an adequate provision of the right tools to guide people to the right support and care, or to enable them to take the right support and care, and a follow-up evaluation.

To conclude, two critical limitations of the analyses need to be discussed which point to actions for further research. First, an elder abuse risk assessment instrument can identify a wider number of older people at risk of elder abuse than those who were actually abused. Identifying individuals at high risk of elder abuse and mistreatment necessitates further thorough examination. On the other hand, it is clear that screening on risk of elder abuse and mistreatment will not identify all cases of abuse, but every identified case that otherwise would have gone unidentified is important (Cohen, 2013). Second, our research provides only an initial exploration of the REAMI. It would be particularly useful to see a number of factor-replication and revalidation studies. Such work could focus on the REAMI in other countries, in different settings (e.g. hospital) or assessment by other care stakeholders (e.g. social workers, care volunteers, …).

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Table 1. Confirmatory factor analysis of the REAMI: Factor loadings

		% Agree	CFA on 3 dimensions, each in 1 separate model Factor loading	CFA on 3 dimensions, together in 1 model Factor loading
Dimension 1: Risk factors older person				
	1. Older person is dependent from one key figure	65.2	0.45	0.42
	2. Older person is isolated	28.1	0.66	0.65
	3. Older person cannot handle the situation	31.3	0.78	0.76
	4. Older person faces physical constraints, dementia, depressive symptoms, addiction, …	47.9	0.64	0.63
	5. Recent radical changes in the life of the older person	22.8	0.40	0.41
	6. History of violence in the family	4.9	0.40	0.49
Dimension 2: Risk factors environment				
	7. Problematic relationship between the key figure and the older person	16.0	0.63	0.68
	8. Problematic relationship between the key figure and his close environment	11.9	0.66	0.71
	9. Key figure is dependent from the older person	11.4	0.63	0.62
	10. Care is too heavy for the key figure	15.8	0.73	0.71
	11. Care knowledge from the key figure is insufficient	13.5	0.72	0.73
	12. The key figure is isolated	7.6	0.66	0.65
	13. The key figure cannot handle the situation anymore	15.4	0.83	0.81
	14. The key figure has physical constraints such as dementia, depressive symptoms, addiction, …	12.2	0.73	0.72
	15. The key figure has financial problems	4.2	0.55	0.57
	16. Recent radical changes in the life of the key figure	14.3	0.49	0.50
Dimension 3: Signals of elder abuse				

	17. Signals of violation of rights	3.4	0.79	0.77
	18. Signals of emotional abuse and mistreatment	8.1	0.77	0.80
	19. Signals of neglect	8.0	0.64	0.65
	20. Signals of financial abuse and mistreatment	6.3	0.76	0.74
	21. Signals of physical abuse and mistreatment	1.7	0.66	0.67
	22. Signals of sexual abuse and mistreatment	0.3	0.55	0.55

Table 2. Goodness-of-Fit statistics for the three dimensions separate, and the integrated instrument

	RMSEA*	CFI **	TLI **
Dimension 1: Risk factors older person	0.05	0.98	0.97
Dimension 2: Risk factors key figure	0.08	0.95	0.93
Dimension 3: Signals of elder abuse and mistreatment	0.07	0.98	0.96
Integrated instrument: REAMI	0.07	0.91	0.92

*: not allowed to be > 0.08.

**: should be > 0.90.

Appendix 1: Risk on Elder Abuse and Mistreatment Instrument (REAMI)

Table A1. Questions of the Risk on Elder Abuse and Mistreatment Instrument (REAMI)

To which extent do you feel that:	A	B	C	D
1. …the older person is dependent from one key figure*? (e.g. for care, finances, administration, housing, …)				
2. …the older person is isolated?				
3. …there are signals that the older person cannot handle the situation anymore? (e.g. signals of overburdening, fatigue, emotionality, irritation, short temper, indifference, feelings of powerlessness, frustration, anxiety…)				
4. …the older person faces physical constraints, dementia, depressive symptoms, addiction, psychiatric or psychosocial problems?				
5. … radical and stressful changes in the life of the older person have recently occurred? (e.g. move house, death of partner …)				
6. … there is a history of violence in the family?				
7. … the relationship between the key figure and the older person is problematic? (e.g. stress, tensions, conflicts, …)				
8. … the relationship between the key figure and his close environment is problematic? (e.g. stress, tensions, conflicts, …)				
9. … the key figure is dependent from the older person?				
10. … the care, provided by the key figure, for the older person is too much?				
11. … the care knowledge of the key figure is insufficient?				
12. … the key figure is isolated?				
13. … there are signals that the key figure cannot handle the situation anymore? (e.g. signals of overburdening, fatigue, emotionality, irritation, short temper, indifference, feelings of powerlessness, frustration, anxiety…)				
14. … the key figure faces physical constraints, dementia, depressive symptoms, addiction,				

* Older people (in particular in a caring context) often have a key figure. This might be for example the partner, one of the children (in-law), a neighbour or a professional caregiver. A key-figure is someone who is very close with the older person and has a close bond with him/her.

psychiatric or psychosocial problems?				
15. … the key figure has financial problems?				
16. … radical and stressful changes in the life of the key figure have recently occurred?				
17. … there are signals of violation of rights? (e.g. hindered to read their mail, to meet friends or acquaintances …)				
18. … there are signals of emotional abuse and mistreatment? (e.g. feeling anxious, ashamed, threatened by accusations, being belittled …)				
19. … there are signals of neglect ? (e.g. lack of getting dressed, groceries, meals, household …)				
20. … there are signals of financial abuse and mistreatment? (e.g. forced to sign papers or to give money or goods, forced changes to a will, sudden unexplainable changes in the financial situation …)				
21. … there are signals of physical abuse and mistreatment? (e.g. physically injured, assaulted …)				
22. … there are signals of sexual abuse and mistreatment? (e.g. unwanted touching, obliged to undress himself …)				

Appendix 2: Confirmatory factor model

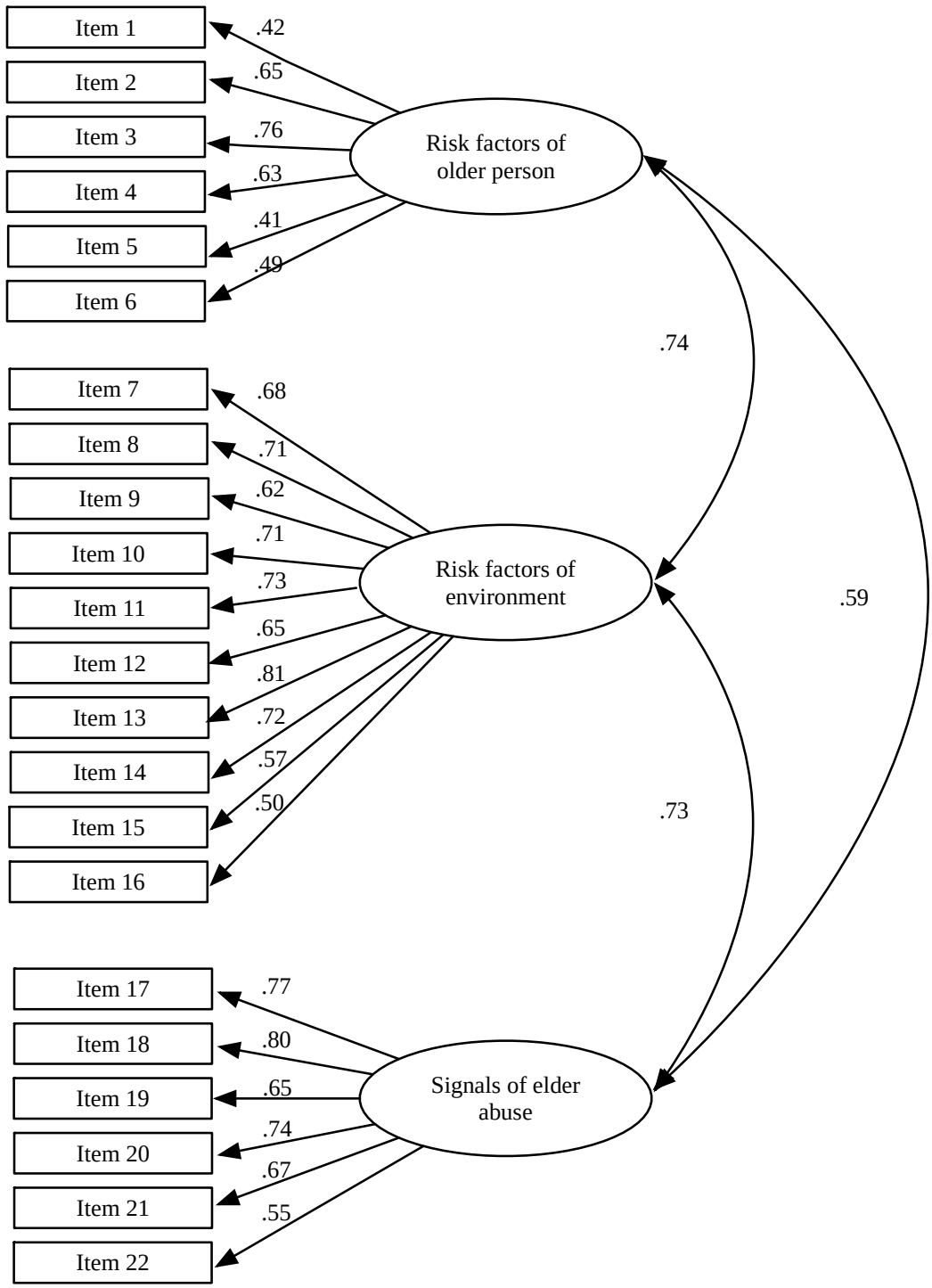

Figure A1. Confirmatory Factor integrated Model “Risk on Elder Abuse and Mistreatment Instrument”