

Non-suicidal Self-injury in the Over 40s: Results from a Large National Epidemiological Survey

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Abstract

Using data drawn from a national community study of Non-suicidal Self-injury (NSSI) in 12,006 Australians aged 10-100 years, we focused on 78 subjects aged ≥ 40 years (53 females, 25 males) reporting NSSI in the previous 12 months. Mean onset was 25.4 years (SD 14.66, range 5-60, mode 15 years), 60.3% beginning before 25 years. Seventeen people began self-injury after 40 (13 females (9.9%); 4 males (6%)). For the month prior, 19 older females claimed 1-50 episodes (mean 10.5), 9 males 1-28 episodes (mean 7.4).

Compared to younger self-injurers, older self-injurers more likely had a psychiatric diagnosis (OR21.22, 95% CI [3.90, 115.52]), higher psychological distress (OR9.41, CI [1.73, 51.24]), and lifetime suicide attempts (38.2% to 28.0%, NS). However, younger self-injurers were more likely to report feeling suicidal in the previous four weeks (OR3.16, 95% CI [1.18, 8.45]) with 80.0% (versus 55.8% of ≥ 40 years) scoring high on a brief suicidal ideation scale. Most common motivation for NSSI was 'emotion regulation', with self-injurers ≥ 40 years (68.6%) more likely to endorse this than <25 years (54.5%) (NS). Compared to those ceased for over two years, current older self-injurers reported higher psychological distress (OR2.39, 95% CI [1.06, 5.40]) and self-blame (OR3.79, CI [1.75, 8.21]).

Respondents ≥ 40 years with no NSSI for two years ($n=239$) reported they had 'grown up' or 'gotten over it' (33.9%), 'talked to a mental health professional' (26.8%), 'learned better ways to cope with stress' (25.5%) and 'received support from other people' (25.1%). Only 25.7% asked for professional help. Barriers to help-seeking were 'feeling as if their NSSI problem was not severe enough' (29.7%), 'feeling ashamed or embarrassed' (24.3%), 'feeling no-one would be able to help' (21.6%) and 'not wanting or needing help' (21.6%). It appears NSSI in the over 40s reflects a hidden and very troubled group. The potential seriousness of self-injury in this group has implications for families, general practitioners, mental health clinicians, emergency departments, and community services.

Keywords: Non-suicidal self-injury; Self-harm; Older adults; Demographics; Epidemiology

Introduction

Non-suicidal self-injury (NSSI) is reported by patients in mental health units [1,2] and people in the community [3,4]. Media reports often suggest an 'epidemic' with ever increasing numbers [5,6]. However, recent meta-analyses [7,8] have shown this to be unfounded, apparent increases resulting from increasing construct specificity in research reports, and more comprehensive, focused questionnaires. A large Australian epidemiological study [9] found overall lifetime community prevalence across all ages of 8.1%, with 1.1% claiming deliberate self-injury without suicidal intent in the month prior to survey. NSSI was carefully defined based on international best practice [10,11]. A large proportion of self-injurers also reported episodes of suicidality (thoughts and suicide attempts) confirming overlap between NSSI and 'deliberate self-harm', a term referring to self-harm irrespective of suicidal intent [12]. The implication NSSI may be a marker or risk factor for later suicide is of major public health concern given increasing international focus on prevention [13].

NSSI predominantly has an onset in early adolescence [14,15], peaks in young adulthood [4,9] and thereafter declines. International researchers have focused on adolescents in school-based studies [16-19] and young adults attending college or university [20-22]. In an extensive search, we could find little research into NSSI focused specifically on older people. Yet this group raises important questions. Does NSSI ever begin in adulthood rather than in adolescence or young adulthood? If so, what factors precipitate this behavior, and are underlying dynamics the same as for younger initiators? Does NSSI in adults who continue to self-injure from adolescence into adulthood, serve the same purposes as in younger people? Can we discern what factors perpetuate the problem and, conversely, what factors might assist adults to cease NSSI? Finally, are older self-injurers different to younger self-injurers on psychiatric history, suicidality, treatment seeking or help-seeking?

Three research studies on NSSI reference older people. In an often cited epidemiological paper, Briere et al. (1998) [23] reported three studies of self-injurers (a national community study, a clinical sample, and a specific sample of self-injurers). The community study, a US survey of the Trauma Symptom Inventory (TSI), included responses to a single question specific to NSSI 'over the last six months', with three

possible responses. Mean age for the sample (972 individuals, 50% male, 50% female) was 46 years (range 18-90). Thirty-three people (4.0% overall, 19 females, 14 males) admitted NSSI, three reporting frequent injury (0.3%). Self-injurers were significantly younger (mean age 35 years, range not provided). Demographic and other comparisons were not reported and, given the focus of the study was on the TSI, the only additional information provided was that a history of childhood sexual abuse was more frequent in self-injurers compared with other community subjects (52% vs. 22%; $p < 0.001$).

Klonsky's 2011 study [24] was a dedicated national attempt to understand epidemiology of US self-injury, designed to address gaps in Briere and Gils study. Using random-digit dialing to access households, 439 adult participants from 1557 eligible households (28.2% response rate) answered the questionnaire. A single NSSI question asked about 'lifetime' NSSI, with a five-option response grading frequency. This led to detailed questions for those admitting self-injury. Participants were aged 19-92 years ($M=55.5$, $SD \pm 16.6$), significantly older than the overall US population (28.8% >64 years compared to 12.8%). The sample was 61.0% female, 86.1% Caucasian. Overall prevalence of NSSI was 5.9% ($n=26$), 14 subjects self-injuring 1-4 times (3.2%), 6 injuring 5-9 times (1.4%), and 6 (1.3%) 10 times. The 12-month prevalence was 0.9% (4 subjects). Four times as many self-injurers were aged 30 years or less ($n=21$) compared to those over 30 ($n=5$). Unfortunately, the tiny numbers of self-injurers over 30, and the young age of 'most recent self-injury' (24.9 years), do not help us to answer questions about those over 40.

Recent national research by Choi et al. [25] examined US prevalence and characteristics of NSSI compared to suicide attempt in adults older than 50 years, seen at Emergency Departments. Of 67,069 visits, 23.1% presented with NSSI. Compared to suicide attempts, NSSI was associated with older age (65-74 and 75+), female gender, lower levels of psychiatric disorders and alcohol use, higher drug use, and greater risks of hospital admission. The authors point out the higher risk for early death, emphasizing potential lethality of intentional self-destructive behaviors in late life even when not classified as suicide attempts.

While research on NSSI among older people is lacking, a substantial number of studies have investigated the broader construct of deliberate self-harm (DSH) in this population [26-31]. The review by Draper [29] noted factors associated with suicidal behaviour in old age, including being unmarried, social isolation, impaired physical health or mental illness (particularly major depression), and having high suicidal intent. Draper argued for further study of the older age group, and for future studies to be prospective, longitudinal, using standardized measures and matched control groups.

In a prospective study of 4033 DSH attendances over five years at UK emergency departments, Gunnell et al. [32] reported the majority ($n=3198$, 79.4%) were from overdose, with 11.4% ($n=457$) from self-laceration, 4.8% ($n=193$) from a combination of laceration and overdose, and 4.4% ($n=178$) from other methods. Ages ranged from 18-90 years (median 33 years), with 54.8% female. Presentations aged over 45 years were significantly more likely to have undergone a psychosocial assessment, but less likely to be admitted.

A prospective population-based study [33] followed 1177 adults aged 60 years and above, presenting with DSH to six general hospitals

in England. A history of DSH, previous psychiatric treatment and age 60-74 years predicted DSH, with 12.8% repeating DSH within 12 months. Risk of suicide was 67 times that of older adults in the general population. These studies make it clear that those with any history of self-harm are at greater long-term risk of mortality from suicide and physical illness, compared with normal expectations for age.

Studies into DSH in older adults have been conducted in Australia and Europe [34-37], but none focus on self-injury without suicide intent. Despite enormous sample size, the multicentre approach, and elegant design and statistics, these studies do not differentiate between attempted suicide and NSSI. It is therefore not possible to derive clear answers to the questions we have raised regarding NSSI.

The Australian National Epidemiological Study of Self-Injury (ANESSI) [9] set out to map NSSI and its correlates 'across the life time', 'for the previous year' and also for 'the past month', as well as implications for self-injurers, their families, mental health professionals and the Australian community. This paper reports community-based self-injurers aged ≥ 40 years, and attempts to answer the questions we have posed.

Methods

Details of methodology for the Australian epidemiological study of self-injury (ANESSI) are available in the downloadable final report [38]. In brief, 42,938 addresses derived randomly from Electronic White Pages were posted an approach letter, participant information sheet, lists of Mental Health and Indigenous health services, and a summary of interview questions. Of these, 31,216 eligible households were invited to take part in a computer assisted telephone interview (CATI). Within time and budget constraints 12,006 interviews were completed (overall response rate 38.5%), taking an average 13.6 minutes. The project was carried out according to the National Statement on Ethical Conduct in Research Involving Humans [39], and approved by the Behavioural and Social Sciences Ethical Review Committee of the University of Queensland. Telephone numbers of relevant support services were offered to participants on interview completion. Data were weighted by age, sex and state to reflect the structure of the Australian population 10 years and over [40]. Our sample compared well for Indigenous status, 183 (1.9%) respondents identifying as Aboriginal or Torres Strait Islander (2.3% in the population; $X^2=0.63$, $p=0.426$). However, Asian-born respondents were underrepresented ($X^2=133.08$, $p < 0.001$), the sample was better educated ($X^2=1086.80$, $p < 0.001$, aged 25-64 years only), and there were fewer married/defacto individuals and more single individuals ($X^2=42.07$, $p < 0.001$). The percentage aged 16-85 years with anxiety disorders (15.1%, including general anxiety, social anxiety, post-traumatic stress disorder, obsessive compulsive disorder, panic disorder, panic attacks, agoraphobia) was not statistically different to the 2007 National Survey of Mental Health and Wellbeing [41]. The percentage claiming a mood disorder (19.2%; including depression, post-natal depression, dysthymia, mood disorder not otherwise specified, seasonal affective disorder and bipolar disorder) was higher than the National Survey (6.2%, $X^2=5.96$, $p < 0.02$). The current study focuses on adults aged ≥ 40 years ($N=8,544$, 61.9% female), mean age 59.98 years ($SD=11.98$, range 41-100). Socio-demographic characteristics of this sample are in Table 1.

Gender	Female (61.9%); Male (38.1%)
Age groups	40-49 (24.6%); 50-59 (28.4%); 60-69 (24.4%); 70-79 (15.4%); ≥ 80 (7.1%)
Sexual orientation	Heterosexual (97.9%)
Index education and occupation	Lower half (51.5%); Upper half (48.5%)
Index relative social disadvantage	Upper half (47.6%); Lower half (52.3%)
State/Territory of residence	New South Wales (32.2%); Victoria (23.8%); Queensland (20.4%);
	Western Australia (8.8%); South Australia (8.7%); Tasmania (3.5%);
	Australian Capital Territory (2.3%); Northern Territory (0.3%)
Region of birth	Australia and New Zealand (77.8%); Europe and the United Kingdom (16.7%); Asia, Japan, Korea, Melanesia, Micronesia, Polynesia (2.8%); Africa and the Middle East (1.7%); The Americas and the Caribbean (0.9%)
Indigenous status	Aboriginal and/or Torres Strait Islander (1.3%)
Main language spoken at home	English (95.9%); Italian (1.1%); Chinese (0.5%); Greek (0.3%); Other (2.3%)
Marital status	Married (58.9%); Widowed (13.5%); Separated/divorced (11.6%); Single (10.6%); De facto (4.9%); Partnered but not living together (0.5%)
Educational status	Finished high school/certificate/diploma (68.7%); Bachelor's degree (16.1%); Post-graduate study (12.0%); Did not finish high school (1.7%); Other (1.5%)
Work status	Retired (36.6%); Full-time employed (31.8%); Part-time employed (13.9%); Other (17.7%)

Table 1: Socio-demographic characteristics of respondents aged ≥ 40 years.

ANESSI interview questions

Sociodemographic questions (age, gender, geographical location, country of birth, Indigenous status, language spoken at home, marital status, educational attainment, work status, and sexual orientation) were drawn from previous surveys [42,43]. Geographical location responses were used to calculate measures of socioeconomic status, using the Index of Education and Occupation and Index of Relative Socioeconomic Disadvantage [44].

NSSI questions were based on previous research by the investigators [4,45,46]. An introductory statement “The following questions are about self-injury. Self-injury means deliberately hurting yourself or any part of your body without meaning to kill yourself. Do you understand this definition?” was followed by: “Remember that if you feel uncomfortable you don’t have to answer these questions.” If respondents verbalised their understanding of the definition and did not object to continuing, they were asked: “Over the past four weeks, have you self-injured?” Those responding affirmatively were asked about seven specific methods for NSSI (cutting; scratching; burning; biting; hitting a part of their body on a hard surface; punching, hitting or slapping themselves; overdosing; and “anything else?”). Additional questions on motivations, pain perception, frequency, age of onset, disclosure, help-seeking, medical treatment, hospitalisation, whether they wanted to stop, reasons for not stopping, and reasons for not getting help were also asked. If respondents denied four-week NSSI they were asked: “Have you ever, in your lifetime, self-injured?” Those responding affirmatively were asked about methods, age of onset, recency, and reasons for stopping. Although overdose is a common method of suicide attempt, it is also used as a form of NSSI and was included in this study. Respondents reporting four-week NSSI and NSSI within the past 12 months were assigned to the ‘12-month NSSI prevalence’ group.

The NSSI module was followed by questions about suicidality, prefaced by: “Now I’m going to ask you some questions about when life may not be worth living”. Four questions from the 28-item version of the General Health Questionnaire [47] measuring suicidal ideation [48] were: “Over the past few weeks. (1) have you felt that life isn’t worth living, (2) thought of the possibility that you might do away with yourself, (3) found yourself wishing you were dead and away from it all, and (4) found the idea of taking your own life kept coming into your mind?”. Respondents were then asked: “Have you ever tried to kill yourself?” Additional information about any suicide attempts was requested, including number, age at attempts, degree of suicidal intent, feelings about having survived, method, whether an ambulance was called, attendance at an emergency department, and time spent in hospital (details not reported in this paper).

Psychological distress was measured with the 12-item version of the General Health Questionnaire, a screening device for mental health disorders, used worldwide in epidemiological studies [49]. ‘Psychiatric diagnosis’ was measured by one question: “Have you ever been told that you have: anxiety, depression, post-traumatic stress disorder or attention deficit hyperactivity disorder?”. The first three disorders were included because they are commonly associated with NSSI [50]. Attention deficit hyperactivity disorder was included due to interest in a possible connection between NSSI and attention deficit hyperactivity disorder. Borderline personality disorder, eating disorders and substance use disorders are frequently associated with NSSI, but were not included due to their relatively low prevalence in the general community and the potentially high rate of misdiagnosis in borderline personality disorder [51]. Participants were however invited to nominate ‘any other’ psychiatric disorder.

Ideally, we would have used full scales with documented reliability and validity to measure NSSI, suicidality, psychiatric diagnoses,

emotion regulation, impulsivity, dissociation, child maltreatment and substance use. With telephone interview time constraints this was not feasible, and our variables were selected from widely used scales and measures with demonstrated reliability and validity. Items were chosen by consensus on the basis of face validity and strong correlations between single items and the overall scales.

For emotion regulation we selected from three separate scales. From the Emotion Regulation Scale [52] we chose two items (“Are you able to change the way you feel about something by trying to change the way you think about it?” and “Do you control your emotions by keeping them to yourself?”). From the Toronto Alexithymia Scale [53] we used one core item (“Do you find it difficult to find the right words for your feelings?”). From the Brief COPE [54], we used three items (“When you are very stressed, how often do you blame yourself for things that happened?” “When you are very stressed how often do you do other things to take your mind off things?” and “When you are very stressed, how often do you turn to your family for support?”).

Impulsivity was measured with two items from the Plutchik Impulsivity Scale [55] (“In everyday life are you impulsive?” and “In everyday life do you lose your temper?”). From the Dissociative Experiences Scale [56] two types of dissociation were measured - depersonalisation (“Sometimes people feel that other people, objects, and the world around them are not real. How often does this happen to you?”) and derealisation (“Sometimes people feel that their body does not belong to them. How often does this happen to you?”).

Questions on child maltreatment (neglect, physical abuse, sexual abuse) were based on items from the Child Trauma Questionnaire [57], and were prefaced by the statement: “Now I would like to ask you about stressful or upsetting events that sometimes happen to people. Remember that if you feel uncomfortable you can decline to answer these questions.” Questions were: “As a child, did you ever experience neglect from one or more parents?”, “During your childhood, were you ever physically abused, attacked or assaulted?” and “During your childhood, were you ever sexually abused or assaulted?” Respondents reporting maltreatment were asked further details.

Questions on substance use were adapted from the 2004 National Drug Strategy Household Survey [58] and included: “How often do you usually drink alcohol?”, “On a day or night when you drink, how

many standard drinks, on average, would you have?”, “How often do you drink specifically to get drunk?”, “Do you smoke?”, “On average how many cigarettes do you smoke per day or each week?”, “Have you ever used marijuana?, amphetamines?, ecstasy?, inhalants?, heroin?, cocaine?, LSD?, anything else?”.

Analyses

The focus of this paper is specifically on characteristics of older self-injurers (≥ 40 years), especially factors involved in initiation and perpetuation of NSSI. We were also interested in ways that older self-injurers might differ from younger self-injurers. A series of chi-square analyses were conducted:

(1) Between respondents aged ≥ 40 years self-injuring in the prior 12 months ($n=78$), with those aged ≥ 40 years who had never self-injured ($n=8,065$);

(2) Between respondents aged ≥ 40 years self-injuring in the prior 12 months ($n=78$), with those aged ≥ 40 years with a life-time history of NSSI but no NSSI episodes in at least two years ($n=239$);

(3) Between respondents aged ≥ 40 years self-injuring in the prior 12 months, with age of NSSI onset <25 years ($n=41$) compared to those with age of onset ≥ 25 years ($n=27$), and

(4) Between respondents aged ≥ 40 years self-injuring in the prior 12 months and those aged <25 years self-injuring in the 12 months before interview ($n=85$).

Variables analysed were demographics (gender, relationship status, socioeconomic status, and education level), psychological variables (psychiatric history, psychological distress, self-blame), and suicidality and characteristics of NSSI (motivations, reasons for stopping, and help-seeking). Some interview questions were only asked of respondents who had self-injured in the four weeks prior to the interview.

Results

Across all ages, 219 respondents reported NSSI within the 12 months prior to interview (141 females, 78 males). Of these, 78 were aged ≥ 40 years (53 females, 25 males) (Table 2).

Age group	Female		Male		Combined	
	n	%	n	%	n	%
15-24	58	41.1	27	34.6	85	38.8
25-39	30	21.3	26	33.3	56	25.6
40-49	26	18.4	14	17.9	40	18.3
50-59	16	11.3	7	9	23	10.5
60-69	7	5	2	2.6	9	4.1
70-79	2	1.4	1	1.3	3	1.4
≥ 80	2	1.4	1	1.3	3	1.4
Total	141	100	78	100	219	100

Table 2: Twelve Month Non-suicidal Self-injury (total community sample 12,006).

Overall, mean age of onset was 18.85 years (SD=10.92, range 5-60), with most (80.3%) beginning before age 25 years and fewer (19.7%) beginning ≥ 25 years. For the ≥ 40 group, mean age of onset was 25.4 years (SD=14.66, range 5-60) with 60.3% beginning <25 years and 39.7% beginning ≥ 25 years. Seventeen people acknowledged beginning self-injury after age 40; 13 females (9.9%) and 4 males (6%). Despite this, the modal age of onset for both over and under than 40s was 15 years.

There were no discernible differences in demographic variables between respondents aged ≥ 40 years who had never self-injured and respondents aged ≥ 40 years reporting 12-month NSSI with age of onset ≥ 25 years (n=78).

	N	% responses	% cases
Grew up/got over it	81	15.2	33.9
Talked to a mental health professional	64	12	26.8
Better coping	61	11.4	25.5
Support	60	11.2	25.1
Problem solving	47	8.8	19.7
Medication	27	5.1	11.3
Distraction/hobby	26	4.9	10.9
Talk to General Practitioner	22	4.1	9.2
Other	19	3.6	7.9
Don't know/refused/inappropriate answer	17	3.2	7.1
Hospital	16	3	6.7
Expressive therapy	14	2.6	5.9
Change	11	2.1	4.6
For family	10	1.9	4.2
Single episode	8	1.5	3.3
Religion/spirituality	8	1.5	3.3
Pain	6	1.1	2.5
Self-awareness	6	1.1	2.5
Change perception of situation	5	0.9	2.1
Other mental health intervention	4	0.7	1.7
Remove person	4	0.7	1.7
Silly/pointless	4	0.7	1.7
Exercise	3	0.6	1.3
Control/willpower	3	0.6	1.3
Meditation/yoga/relaxation/breathing	2	0.4	0.8
Stopped drinking/using drugs	2	0.4	0.8
Fear of serious harm	2	0.4	0.8
Embarrassment/shame	2	0.4	0.8
	534	100	

Table 3: Reasons for Cessation (respondents aged ≥ 40 years with a lifetime history of NSSI but no NSSI in the two years before the interview).

However, self-injurers were more likely to have received a psychiatric diagnosis (OR 21.22, 95% CI [3.90, 115.52]), score high on psychological distress (OR 9.41, CI [1.73, 51.24]), and blame themselves during times of stress (OR 8.23, CI [2.65, 25.50]). For the month prior to interview, nineteen females ≥ 40 years claimed between 1 and 50 episodes of self-injury (mean 10.5), and nine males aged ≥ 40 years claimed between 1 and 28 episodes (mean 7.4).

There were also no differences on any demographic variable between those aged ≥ 40 years reporting 12-month NSSI and those aged ≥ 40 years who had ceased. However, those reporting 12-month NSSI were more likely than those who had ceased to report high psychological distress (OR 2.39, 95% CI [1.06, 5.40]) and blame themselves in times of stress (OR 3.79, CI [1.75, 8.21]).

Age of onset (<25 years vs. ≥ 25 years), for those aged ≥ 40 years reporting NSSI in the previous 12 months appeared to make no difference to any psychological variable. However, there were differences between self-injurers over 40 years and those under 25 years. Over one third (38.2%) of those ≥ 40 years self-injuring in the 12 months before interview reported a lifetime suicide attempt, compared with 28.0% of under 25 year olds. This difference was not statistically significant. However, 80.0% of under 25 year olds and 55.8% of ≥ 40 year olds scored in the high suicidal ideation range, younger self-injurers more than three times as likely to report feeling suicidal in the four weeks before interview (OR 3.16, 95% CI [1.18, 8.45]).

Motivations for NSSI were compared between respondents under 25 years ($n=37$) and over 40 years ($n=39$) who had self-injured in the four weeks before the interview. For both groups, the most common motivation was emotion regulation, with self-injurers aged ≥ 40 years more likely to endorse this motivation (68.6%) than respondents aged under 25 years (54.5%), although the difference was not statistically significant (OR 1.82, 95% CI [0.45, 7.34]).

Reasons for ceasing NSSI were explored among respondents aged ≥ 40 years with a lifetime history of NSSI but with no NSSI episodes in at least two years ($n=239$). The most common stated reason was a feeling that the respondent had 'grown up' or 'gotten over it' (33.9%). This was followed by 'talking to a mental health professional' (26.8%), 'learning better ways to cope with stress' (25.5%) and 'receiving support from other people' (25.1%). Importantly, respondents were able to nominate more than one reason for stopping, but it is unclear how these reasons may interact to result in cessation of NSSI (Table 3).

Two thirds (60.0%) of respondents aged ≥ 40 years self-injuring in the four weeks before interview had family members or friends who knew of their NSSI, but most (74.3%) did not ask for help. Of those who did, the most common source of help-seeking was 'a counselor' (42.9%), followed by 'a general practitioner', 'other health professional', and 'relative other than partner/spouse' (total 28.6%). The most common barrier to help-seeking was 'feeling as if their NSSI problem was not severe enough', with 29.7% of self-injurers aged ≥ 40 years feeling this way. Other commonly reported barriers to help-seeking were 'feeling ashamed or embarrassed' (24.3%), 'feeling no-one would be able to help' (21.6%) and 'not wanting or needing help' (21.6%).

Respondents reporting NSSI in the 12 months before interview aged ≥ 40 years ($n=43$) were not more likely to be currently receiving treatment than respondents aged less than 40 years ($n = 85$) (OR 1.52, 95% CI [0.57- 4.02]).

Discussion

Given the international focus on NSSI in adolescents, and with only a handful of research studies referencing self-harm in older people, we believe it is important to have explored the group of over 40s from our large national community study. Our focus was on those self-injuring within the last 12 months, providing sufficient numbers to allow meaningful statistical analysis. Some may be surprised that 78 people 40 years old and over claimed to have self-injured, and perhaps even more surprised to find 60-80 year olds admitting to self-injury (even if numbers were tiny). Given the clear description provided to respondents during interview, and the high quality training and support of professional telephone interviewers, we are confident in this finding.

For many over 40s NSSI appears to have been a long-term way of managing emotion, with 60% of our over 40s having been motivated to self-injure from early on (mode 15 years, mean 25 years). Despite this, 40% began after age 25, and seventeen claimed to have begun after age 40. Our over 40s group were not particularly defined by demographic factors other than age. The claimed frequency of self-injury for some in the month prior to interview suggests a troubled group, and overall they did report high levels of distress and self-blame and a higher likelihood of having a psychiatric diagnosis. In addition, a high percentage scored into the high suicidal ideation range, and over one third claimed a lifetime suicide attempt.

As in previous studies of self-injury, those claiming to have ceased were significantly less troubled than those continuing. Many reasons for ceasing were given, but 'getting over it', 'learning better ways to cope', gaining 'support from other people' and 'talking to a mental health professional' reinforces what we know about the importance of 'help-seeking' [59]. Unfortunately, people are easily dissuaded from seeking help for NSSI, as evidenced by research conducted with adolescents. The majority of our older self-injurers did not ask for help, most commonly due to 'feeling as if their NSSI problem was not severe enough', with shame and embarrassment playing a strong role, and 'feeling no-one would be able to help'.

Few specific therapies rated a mention, though medication was high on the list. Expressive Therapy was endorsed, as well as 'learning to cope better', or 'changing the perception of a situation'. Overall, these reflect recent studies focused on cessation of self-injury [14,22,60-62]. Given its accepted use in borderline personality disorder, it was surprising that Dialectical Behavior Therapy was not mentioned, but recent high quality studies may change this [63].

In conclusion, it appears that older self-injurers are not very different to younger self-injurers on psychiatric history, method of self-injury, and the lack of social support, help-seeking and treatment seeking. More than a third reported a lifetime suicide attempt, and nearly two thirds of self-injurers over 40 scored in the high suicidal ideation range. This and the claimed frequency of NSSI in the month prior point to the importance of assessment, support and treatment in this rather hidden group.

There are acknowledged limitations in our national study, despite its large overall size. It was a community study, and may not have captured more serious self-injurers. The issues raised are sensitive, and may have been confronting for some of our subjects; we have discussed this elsewhere [64]. The limited time available for gaining responses to a lengthy and broad range of questions, did not allow for in-depth discussion of self-injury. We did address a large number of relevant

constructs, but used only one or two key questions to represent complex questionnaires.

Despite limitations, we believe the research goes some way toward answering important questions about NSSI among older adults not explored elsewhere, and alerts us to the potential seriousness of self-injury in the over 40s population. There are short and long-term implications for older self-injurers and their families, as well as mental health clinicians, emergency departments, and those in community services trying to understand NSSI and intervene.

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