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Care of general practice patients preceding and following a suicide attempt: observational study in Flemish general practices

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ABSTRACT

Objectives First, to examine general practitioner (GP) knowledge about the care (needs) of their patients; second, to examine the quality of GP follow-up care; third, to examine the transmission of patient care information from hospitals/emergency services (ES) to GPs.

Setting 105 general practices from the representative Belgian Network of Sentinel General Practices (SGP) in Flanders, the largest region of Belgium, during 2013–2016.

Participants 245 suicide attempts by regular patients.

Outcomes measures Ten care-related measures, including three indicators of quality of follow-up care, were based on data reported by the SGP on structured forms at baseline and at two follow-up points in time.

Results As for GP knowledge, 10.5% of SGP failed to report whether suicidal risk was noticed in patients seen in the month preceding the attempt; 9.0% whether there were previous attempts; 22.5% whether the patient was receiving mental health treatment at follow-up and 22.0% whether suicidal behaviour was repeated at follow-up. Relatively more patients≥65 years had no suicide risk evaluation (OR 3.54; 95% CI 1.11 to 11.26). As for quality of follow-up care, there was a GP–patient contact following 90.5% of the attempts, follow-up appointments were planned following 43.4% of the attempts and there was a GP contact with patient proxies following 62.8% of the attempts. Patient age ≥65 years (OR 4.09; 95% CI 1.79 to 9.33), a recent GP–patient contact preceding the attempt (OR 1.97; 95% CI 1.13 to 3.43), depression of patient (OR 1.96; 95% CI 1.14 to 3.37) and a suburban SGP area (OR 2.34; 95% CI 1.13 to 4.82) were determinants of an increased quality of care sum. GPs received patient care information from a hospital (ES) for 67.8% of eligible attempts, with SGP practice location being a determinant.

Conclusions GPs are highly involved in the care of suicide attempters but there is room for improvement, also in informational continuity from hospital (ES) to GPs.

Strengths and limitations of this study

- ► This study includes 10 measures of care of general practice patients preceding and following a suicide attempt.
- ► General practitioners were surveyed about the transmission of hospital care information for all eligible patients.
- ► Almost no loss at follow-up.
- ► Data collection forms, several concepts and measures were not validated.

INTRODUCTION

There is plenty of evidence that most people who are at risk for suicide do not consult specialist mental health services but rather see their general practitioner (GP).[1 2] It was also found that many patients consult their GP following a suicide attempt.[3 4] The involvement of GPs in suicide prevention strategies is thus considered to be important, although with few evidence of success.[5 6] The Belgian Network of Sentinel General Practices (SGP) was developed in 1979 drawing on international experiences of sentinel surveillance.[7] The surveillance of suicidal behaviour is based on the registration of all suicides (fatal outcome) and suicide attempts (non-fatal outcome) the SGP are confronted with. We previously found that the sentinel GPs' on-site attendance as first professional caregivers (called out) following suicidal behaviour of patients has strongly declined between the early nineties and 2011–2012, most likely due to the increasing use of hospital emergency services (ES).[8] This trend endangers the care of patients following a suicide attempt as GPs may be unaware of their patients' status and needs. Deficits in communication and information transfer among hospital-based physicians, mental health specialists and primary care physicians, respectively, are a cause of concern.[9 10] Studies also report problems with the timeliness and content of communication between inpatient/emergency care and primary care providers for psychiatric admissions.[11]

In 2013, the surveillance of suicidal behaviour was amended following the implementation of an Instrument for Psychosocial Evaluation and Care for Suicide Attempters (IPEO) as part of the 2007 Flemish suicide prevention strategy.

The IPEO project includes the development of a clinical pathway, training of hospital staff and ensuring continuity of care after discharge by involving GPs and community mental health centres.[12] Information gathered with IPEO is meant to be reported to the patients' GP.[13] Concurrently, guidelines and quality assurance tools were developed and disseminated in Flanders, addressing GPs and other caregivers.[14 15] Based on these quality assurance initiatives, six new measures of care were included in the SGP surveillance, in addition to four measures that were already being monitored. This paper focuses on these 10 measures of care of general practice patients preceding and following a suicide attempt. We used data reported by the SGP in Flanders, the largest region in Belgium, during 4 years (2013–2016).

This study has three objectives. First, we examine GP knowledge about the care their patients received and their care needs preceding and following a suicide attempt. Gaps in (sentinel) GP knowledge are likely the result of failing informational continuity. We specifically examine whether the transmission of care information from hospitals to GPs about their patients who received care following a suicide attempt has a positive effect on GP knowledge of patient follow-up care (needs). Second, we examine three care measures that may be considered as indicators of quality of GP follow-up care. Third, we examine the transmission of care information from hospitals to GPs about their patients who received hospital care following a suicide attempt.

METHODS

Data source

The Belgian Network of SGP comprises general practices with one or more GPs who purposively record routine clinical care data for the surveillance of specific health problems or care delivery. In the study period, 105 practices in Flanders had participated (at least) 1 to (at most) 4 years. This type of network is characterised by a low annual turnover rate of self-selected and self-trained GPs.[16] Methods are used to enhance the quality of data. The sex–age distributions of sentinel and non-sentinel GPs were largely comparable by region and the network covered between 1.2% and 1.5% of the Belgian population throughout all regions in the study period. Based on the size and representativeness of the SGP, it is assumed that the SGP patient population is equally representative of the total general practice population.

Data collection

We used weekly standard (registration) forms to collect baseline data from the SGP for all attempts. In this study, attempts by patients seen for the first time/during out-of-hours care were excluded because the care they receive is incomparable to those of regular patients. Forms to collect follow-up data were sent out, respectively, 1 month and 6 months after the attempt to the SGP. The two follow-up forms each had a invariable core of questions and extra questions tailored to the particular event or requesting data that were not yet reported or missing (table 1).

For example, the questions whether there had been any contact with the patient following the attempt and whether the SGP received any hospital care information were repeated on the second follow-up form if there was a negative or no answer on the first form. SGP were asked to report the date when the follow-up forms were completed, not the exact timing of the distinct care-related measures.

Table 1 Questions, indicators and reporting forms/timeline used to measure the care for suicide attempters, Belgian Network of Sentinel General Practices, 2013–2016

Care measure	Questions to the GPs	Reporting form/timeline
1	Whether the GP had been the first professional caregiver (called out) following the attempt	Baseline
2	Whether the patient received hospital (emergency) care following the attempt	
3	Whether there had been a patient contact in the month preceding the attempt	
4	Whether suicide risk was noticed by the GP during contact in month preceding the attempt	
5	Whether the patient with a mental disorder (depression or other) was receiving specialised mental healthcare in the last 12 months	
6	**Whether there had been any patient contact after the attempt**	First and second follow-up
7	**Whether there had been a contact with patient proxies (family or friends)**	First follow-up
8	**Whether follow-up appointments had been scheduled with the patient**	Second follow-up
9	Whether the patient was receiving specialised mental healthcare	Second follow-up
10	Whether the GP had received patient care information from the hospital (emergency service) about the patient	First and second follow-up

Indicators of quality of care are marked in **bold**.
GP, general practitioner.

Patient and public involvement

Patients and public were not involved in the development of the research question, study design or interpretation of the data.

Variables and measurements

Baseline data include date of the attempt, patients' sex and age, method of self-harm, previous attempts and 5 of 10 care-related care measures (table 1). We summarised the method of self-harm as self-injury, self-intoxication or both methods. If the GP was not the first caregiver on site, we asked whether the GP was notified of the attempt by the hospital (ES) where the patient received care, by the patient or patient proxies. Five of 10 care-related measures were based on follow-up questions (table 1). The final question on the second follow-up form inquired whether the patient had repeated fatal or non-fatal suicidal behaviour.

In addition to the province of the SGP, we included a second SGP location characteristic in this study, that is, the degree of urbanisation of the SGP practice location. Urban areas are associated with an increased risk for mental health problems and with better access to specialised health services.[17] Using Eurostat data and definitions from 2008, we found no SGP in the areas of low population density, only in areas of high and mixed density, from here on described as urban and suburban areas.[18] Both SGP location characteristics were extrapolated to the SGP patients.

Main study outcomes

GP knowledge about their patient's care (needs) was assessed by the information the SGP had (not) reported. The (in)completeness of GP reporting was examined using care measures and other patient characteristics with missing values of approximately 10% or more. Unanswered questions and questions marked with 'unknown' were considered alike.

Quality of GP follow-up care was assessed by three indicators: having a contact with the patient, with the patient's proxies and the scheduling of follow-up patient contacts.

The transmission of hospital care information was based on three possible types of hospital care information: information about the mental/psychiatric status of the patient, care recommendations and risk of recurrence. We did not consider the fourth type of hospital information, 'notification of the suicide attempt' as patient *care* information. When (sentinel) GPs receive hospital care information about their patients who did a suicide attempt, it is not disclosed whether the information is derived from the IPEO instrument or not. Moreover, there is no information available about the implementation of the IPEO pathway in Flemish hospital ES. Only the names of the hospital ES that had been collecting/reporting IPEO-based data about suicide attempters in 2016 were available.[19] Mapping these 'IPEO hospitals' to the accredited hospital ES by province showed significant differences (data not shown). Therefore, we explored the association between the transmission of hospital care information to the SGP and, respectively, the SGP province and the urbanisation of the SGP location.

Statistical analysis

Patient (care) data are event based. Dependent variables were examined by multivariable logistic regression using an exploratory approach, except for the models examining whether the transmission of hospital care information was a predictor of GP knowledge about the patient's care (needs). Determinants of quality of GP follow-up care were examined by multilevel mixed-effect-ordered logistic regression using the sum of quality indicators complied with as dependent variable. Multivariate models initially included all independent variables that were found to be associated univariately at the (borderline) 0.05 level with the dependent variable. Models to examine baseline variables/measures did not include follow-up variables/measures. Analysis of follow-up data was adjusted for median time span between the attempt and the reporting of second follow-up form. Interaction effects between independent variables were tested in all models. A generalised estimating equation approach was used in multivariable logistic regression models to account for the clustering of data within SGP. All analysis were done with Stata V.14.

RESULTS

Study sample and response

Excluding nine patients that were seen for the first time/during out-of-hours care, this study concerns 245 attempts by regular patients. Based on sex and age of the patients per SGP, we estimate that the study concerns 233 persons. Most suicide attempts (74.3%) were reported in the week of the attempt or the week after. The first follow-up report was (partly) completed by the GP 10 weeks (median, IQR 7–15) after the attempt and the second form (partly) 32 weeks after the attempt (median, IQR 29–37). For one attempt, no follow-up data were reported at all. For 223 of 245 attempts (91.4%), none or one of five follow-up care measures were missing.

Population characteristics

Table 2 presents the basic characteristics of the suicide attempt(er)s, care measures at baseline and follow-up, and the urbanisation of the SGP location. Median age was 48 (IQR 30–58) for men and 40 (IQR 25–53) for women. Twenty new suicidal events were reported in the follow-up period of which two with fatal outcome.

Main study outcomes

GP knowledge about their patient's care (needs)

Four questions were relatively frequently left blank or marked with 'do not know' by the GPs: whether suicidal risk was noticed when the patient was seen in the month preceding the attempt (10.5%), whether the patient did previous attempts (9.0%); whether the patient was receiving specialised mental healthcare (22.5%) and

Table 2 Characteristics of suicide attempts reported by the Belgian Network of Sentinel General Practices (SGP) in Flanders, 2013–2016 (n=245)

Baseline data	N (%)	N missing values (%)
Patient sex (valid n=245)		
Women	157 (64.1)	0 (0.0)
Patient age in years (valid n=245)		0 (0.0)
<30	71 (29.0)	
30–49	82 (33.5)	
50–64	56 (22.9)	
≥65	36 (14.7)	
GP informant of suicide attempt (valid n=241)		4 (1.6)
GP was on site as first caregiver following the suicide attempt	46 (19.1)	
Hospital (emergency service) where patient received care	102 (42.3)	
Patient	28 (11.6)	
Patient proxies	65 (27.0)	
GP–patient contact in month preceding attempt (valid n=245)	134 (54.7)	0 (0.0)
Suicide risk was noticed by GP in month preceding attempt (valid n=120)	25 (20.8)	14 (10.5)
Patient received hospital care following suicide attempt (valid n=238)	212 (89.1)	7 (2.9)
Patient did previous suicide attempt(s) (valid n=223)	55 (24.7)	22 (9.0)
Patient mental status in past 12 months (valid n=235)		10 (4.1)
No mental disorder	63 (26.8)	
Mental disorder other than depression	36 (15.3)	
Depression	136 (57.9)	
Patient with mental disorder received specialised mental healthcare (valid n=172)	102 (59.3)	0 (0.0)
Method of suicide attempt (valid n=241)		4 (1.6)
Self-intoxication alone	174 (72.2)	
Self-injury alone	57 (23.7)	
Self-injury and self- intoxication	10 (4.2)	
Follow-up data		
GP–patient contact after attempt (valid n=242)	219 (90.5)	3 (1.2)
GP contact with patient proxies (valid n=234)	147 (62.8)	11 (4.5)
Patient follow-up appointments scheduled (valid n=226)	98 (43.4)	19 (7.8)
Patient was receiving specialised mental healthcare (valid n=190)	123 (64.7)	55 (22.5)
GP received hospital care information (valid n=199)	135 (67.8)	13 (6.1)
Patient repeated suicidal behaviour (valid n=191)	19 (10.0)	54 (22.0)
SGP location characteristics		
Urbanisation of the SGP location (valid n=245)		0 (0.0)
Suburban	88 (35.9)	
Urban	157 (64.1)	
Province (valid n=245)		0 (0.0)
West Flanders	51 (20.8)	
East Flanders	45 (18.4)	
Antwerp	93 (38.0)	
Flemish Brabant	18 (7.4)	
Limburg	38 (15.5)	

The 10 care measures are in bold.
GP, general practitioner.

Table 3 Determinants of sentinel general practices (SGP) reporting of four characteristics of suicide attempts in the Belgian Network of SGP, Flanders, 2013–2016

Baseline characteristics	n/N (%)	P value	Adjusted OR (95% CI)
SGP reported whether suicide risk was noticed (Model 1)			
All	120/134 (89.6)		
Patient age in years			
<65	99/107 (92.5)	0.025	3.54 (1.11 to 11.26)
≥65	21/27 (77.8)		Reference
SGP reported whether patient did previous attempts (Model 2)			
All	216/235 (91.9)		
Patient age in years			
<65	187/209 (89.5)	0.041	Dropped*
≥65	36/36 (100.0)		
Patient had mental disorder other than depression			
No	189/199 (95.0)	0.000	5.08 (2.11 to 12.21)
Yes	27/36 (75.0)		Reference
Follow-up characteristics			
SGP reported whether patient was receiving specialised mental healthcare (Model 3)			
All	190/245 (77.6)		
Patient age in years			
<65	157/209 (75.1)	0.028	Removed †
≥65	33/36 (91.7)		
GP contact with patient proxies or follow-up appointments scheduled			
No	24/51 (47.1)	0.000	Reference
Yes	152/189 (80.4)		5.87 (2.76 to 12.51)
Hospital care information received by GP			
No	43/64 (67.2)	0.012	Reference
Yes	112/135 (83.0)		2.38 (1.12 to 5.02)
SGP reported whether patient repeated suicidal behaviour (Model 4)			
All	190/245 (77.6)		
Patient sex			
Men	61/88 (69.3)	0.021	Reference
Women	129/157 (82.2)		2.11 (1.10 to 4.03)
GP–patient contact in month preceding attempt			
No	79/111 (71.2)	0.029	Removed †
Yes	111/134 (82.8)		
GP contact with patient, patient proxies or follow-up appointments scheduled			
No	3/13 (23.1)	0.000	Reference
Yes	187/231 (81.0)		14.1 (3.67 to 54.42)

The first two models examining determinants of baseline characteristics initially included independent baseline variables associated univariately at the (borderline) 0.05 level with the dependent variable. The two last models examining determinants of follow-up characteristics initially included all independent variables associated univariately at the (borderline) 0.05 level with the dependent variable.
*Patient age was dropped because age≥ 65 predicted the outcome perfectly.
†Variable was removed because it did not significantly affect the fit of the model.
CI, confidence interval; GP, general practitioner; OR, odds ratio; P, p value of univariate association.

whether the patient repeated suicidal behaviour in the follow-up period (22.0%) (table 2). In sum, the GP reported all four characteristics completely for 154 of 245 attempts (62.9%). Table 3 shows determinants of GP reporting of these two baseline and two follow-up characteristics.

Table 4 Determinants of quality of general practitioner (GP) follow-up care score* estimated by ordered logistic regression (clustered by sentinel general practices [SGP]), Belgian Network of SGP, Flanders, 2013–2016

	Sum of quality indicators complied with					
	0	1	2	3		
	n/N (%)				P value	Adjusted OR (95% CI)
All	14/245 (5.7)	67/245 (27.4)	95/245 (38.8)	69/245 (28.2)		
Patient age						
<65	13/209 (6.2)	63/209 (30.1)	84/209 (40.2)	49/209 (23.4)	0.001	Reference
≥65	1/36 (2.8)	4/36 (11.1)	11/36 (30.6)	20/36 (55.6)		4.09 (1.79 to 9.33)
GP–patient contact in month preceding attempt						
No	11/111 (9.9)	39/111 (35.1)	42/111 (37.8)	19/111 (17.1)	0.000	Reference
Yes	3/134 (2.2)	28/134 (20.9)	53/134 (39.6)	50/134 (37.3)		1.97 (1.13 to 3.43)
Patient had depression						
No	10/99 (10.1)	30/99 (30.3)	41/99 (41.1)	18/99 (18.2)	0.001	Reference
Yes	2/136 (1.5)	33/136 (24.3)	52/136 (36.8)	51/136 (37.5)		1.96 (1.14 to 3.37)
Urbanisation of the SGP location						
Urban area	9/157 (5.7)	50/157 (31.9)	63/157 (40.1)	35/157 (22.3)	0.032	Reference
Suburban area	5/88 (5.7)	17/88 (19.3)	32/88 (36.4)	34/88 (38.6)		2.34 (1.13 to 4.82)

The model initially included independent baseline and follow-up variables (including time span between event and reporting of second follow-up form) that were found to be associated univariately at the (borderline) 0.05 level with the dependent variable.
*The quality of follow-up care score is the sum of three indicators: GP–patient contact in follow-up period, GP contact with patient proxies and scheduling of patient follow-up appointments.
P, p value of univariate association.

Patient's older age (≥65 years) was the only determinant of a missing suicide risk evaluation. The odds for knowing whether the patient did previous attempts were higher for patients without a mental disorder other than depression. The transmission of hospital care information to the GP was a determinant of GP reporting whether patients were receiving any mental healthcare in the follow-up period, adjusted for scheduled GP contacts with the patient and contacts with patient proxies. The transmission of hospital care information to the GP was not associated with GP reporting whether there was any recurrent suicidal behaviour in the follow-up period. Patient sex, GP–patient contact in the month preceding the attempt and (scheduled) GP contacts with the patient or contacts with patient proxies in the follow-up period were determinants of this GP knowledge.

Quality of GP follow-up care

The highest compliance (90.5%) was found for having a contact with the patient following the attempt; GP contacts with patient proxies were established in 62.8% of attempts and patient follow-up appointments were scheduled in 43.4% of attempts (table 2). Taken together, all three quality criteria were complied with in 28.2% of cases and none in 5.7%. Table 4 shows four determinants for a higher ranking of quality of GP follow-up care.

Patients aged ≥65 years, patients seen in the month before their attempt, patients with depression and patients from a suburban SGP had relatively higher odds of receiving recommended GP follow-up care.

Transmission of hospital patient care information

GPs received any patient care information from the hospital (ES) where their patient received care following a suicide attempt for 135 of 199 (67.8%) attempts. GPs received information about the mental/psychiatric status of 120 patients (60.3%), care recommendations for 85 patients (42.7%) and risk of recurrence concerning 16 patients (8.0%). A notification of the suicide attempt was received for 148 patients (74.4%).

The odds for receiving patient care information from the hospital (ES) were higher if the GP had been on site as the first caregiver following the suicide attempt of his patient (table 5). A second determinant is the interaction between the two SGP practice location characteristics, urbanisation and province of the SGP. Suburban SGP had higher odds for receiving hospital patient care information compared with urban. In West–East Flanders, the negative association between urban areas and the transmission of patient care information was lower than outside these provinces.

DISCUSSION

This is the first study of a broad range of measures of care of general practice patients preceding and following a suicide attempt. We found considerable gaps in GP knowledge about their patients' history and care needs. GPs who received hospital care information were more aware whether their patients were receiving mental

Table 5 Determinants of transmission of hospital care information about suicide attempters to their general practitioner (GPs), Belgian Network of Sentinel General Practices (SGP), Flanders, 2013–2016

	n/N (%)	P value	Adjusted OR (95% CI)
All	135/199 (67.8)		
GP was on site following the suicide attempt			
Yes	21/23 (91.3)	0.010	5.61 (1.54 to 20.39)
No	112/173 (64.7)		Reference
GP was informed about attempt by patient			
Yes	10/23 (43.5)	0.008	Removed *
No	123/173 (74.1)		
Province of West or East Flanders			
Yes	61/80 (76.3)	0.037	Removed *
No	74/119 (62.3)		
Urbanisation of the SGP location			
Urban area	72/125 (57.6)	0.000	Removed *
Suburban area	63/74 (85.1)		
Interaction between province and urbanisation of SGP location			
Outside West East Flanders, urban area	35/75 (46.8)	0.000	Reference
West East Flanders, urban area	37/50 (74.0)		3.11 (1.16 to 8.33)
West East Flanders, suburban area	24/30 (80.0)		4.40 (1.13 to 17.10)
Outside West East Flanders, suburban area	39/44 (88.6)		9.95 (3.04 to 32.57)

The model initially included independent baseline and follow-up variables (including time span between event and reporting of second follow-up form) that were found to be associated univariately at the (borderline) 0.05 level with the dependent variable.
*Variable was removed because it did not significantly affect the fit of the model.
P, p value of univariate association.

health treatment in the follow-up period. Concerning the quality of GP follow-up care, we found that almost all GPs saw their patients again in the follow-up period, in well over half of the attempts patient proxies were contacted and follow-up appointments had been scheduled for 4 out of 10 patients. GPs complied with all three quality of care criteria in more than a quarter of cases. Quality of follow-up care was higher for older patients (≥65 years), patients seen in the month preceding the attempt, patients with depression and patients (with a GP) in suburban areas. The GPs received hospital (ES) care information for two-thirds of concerned patients. Patients with a GP in suburban areas had higher odds for their GP being informed by the hospital about their status and care needs. This negative 'urban effect' was less strong in East and West Flanders, possibly because the engagement and support of hospitals is higher in the provinces surrounding Gent, home of IPEO.

As far as we know, this is the first study of the flow of patient care information from hospital ES to GPs by surveying GPs. The study is based on usual care data reported by a longstanding sentinel network of GPs that is fairly representative for the GP workforce. The study sample is relatively large and only one patient was lost at follow-up. Therefore, our findings should be generalisable beyond the SGP network. Yet, the study results should be interpreted in light of several limitations. Suicide attempts are relatively rare events and most probably under-reported by the SGP. There may be a reporting bias, possibly towards well-known, older, frequently attending patients. However, the characteristics of suicide attempters are highly similar to those reported by other SGP (see further) and it is known that GPs are the care providers par excellence for older people, equally when the reason for encounter is suicide related.[2 8] By extrapolating location characteristics of the SGP to the SGP patients, we assumed that patients were at home when they committed the attempt. As a matter of fact, 65.8% of the Belgian suicides were found to have occurred at home.[20] The data collection forms and concepts were not validated. Some questions lacked specificity, for example, the type of hospital care that patients received following their attempt. The timing of the distinct follow-up components is unknown. The timing of the hospital care information and its origin (IPEO assessment or not) is equally unknown. Our exploration of the provincial density of IPEO hospitals showed a higher proportion in the provinces of West and East Flanders (data not shown). We thus considered the province as a proxy of the implementation of the IPEO clinical pathway while it is only known that these hospitals have been reporting any suicide attempters data to the Unit of Suicide Research, Ghent, where IPEO was developed. As far as we know, no information is available

about hospital ES compliance with the care steps recommended by IPEO.

We compared our (event-based) patient characteristics to those of the Dutch (2008–2013) Sentinel Networks of General Practices and the person-based findings of the French (2009–2013).[21 22] The French GPs identified 51% (our study: 58%) of the suicide attempters with depression in the year preceding the attempt and the Dutch 55% with lifetime depression; 56% of the Dutch patients received mental health treatment before the attempt and 48% of the French (our study: 43% of all patients [data not shown]). The French GPs had a contact with 59% of the patients in the month preceding the attempt and the Dutch with 46% (our study: 55%); in 29% of the last patient contact, suicide was a concern of the Dutch GPs (our study: 21% in last month contact). The French GPs ignored whether there had been previous attempts for 9.6% of suicide attempters (our study: 9.0%) and 41.3% did previous attempts (our study: 25%). In the French population, 10.6% of suicide attempters were ≥65 years (our study: 14.7%).

A population-level study in Ontario, Canada, found that 10.7% of 23 140 patients who had received emergency department treatment for deliberate self-harm had a family physician mental health visit within 30 days of discharge.[23] This is much lower than our rate of GP–patient contacts following 90.5% of the attempts but our median follow-up time was 8 months and the contact may have been weakly linked to mental health. Furthermore, not all suicide attempters have a GP, and as mentioned before, (sentinel) GPs may not have been always informed about suicidal behaviour of their patients.

According to one medical record audit at a general teaching hospital over a 4-week period, 62% of episodes of self-harm were communicated to the patient's GP, mostly within 24 hours (our study: 74.4% suicide attempts were notified to the GP).[11] A sample of 31 UK hospitals showed a wide variation of self-harm episodes receiving specialist assessment between hospitals (22%–88%, median 58%) and little difference compared with 10 years earlier.[24] No details are reported about follow-up arrangements with GPs. A six centre study equally found large differences in the hospital management of patients following self-harm, more particularly the proportion of patients receiving a psychosocial assessment.[25]

We found that patients in suburban areas received better GP follow-up care and their GPs were better informed about their care (needs) by the hospital (ES). The quality of GP care may be higher in suburban areas because specialised mental healthcare is less available, but studies on this subject have mixed results.[26–28] Our data did not show an association between the use of specialised mental healthcare and urbanisation of the SGP location (data not shown). As for the transmission of care information by hospitals, a recent study in two Irish hospital settings observed the lowest hospital admission rates following self-harm in urban areas and city residents were more likely to leave the hospital without treatment.[29]

Our findings may be considered as baseline data to monitor the quality of care of suicide attempters in general practice. Currently, it is somewhat arbitrarily to evaluate the care-related findings and the extent to which they may be improved. In terms of contacts and quality, we found that GPs are highly involved in the care of suicide attempters of relatively high age. Ironically, patients ≥65 years are excluded from the recently introduced partial reimbursement of four primary care psychology sessions in Belgium. Somewhat surprisingly, the highest rate of GP failure to evaluate suicide risk was found among patients of ≥65 years. Suicide risk evaluation in older people appears to be more complex due to many typical aspects of older peoples' health and lives, including sense of usefulness, social disconnectedness and life events (eg, loss of spouse) and an atypical way of presenting their mental health problems.[30] The proportion of GP contacts with patient proxies (62.8%) may be considered as rather high in view of its non-reimbursement and issues of patient confidentiality. It could be an opportunity to sustain GPs in the engagement and support of patient proxies as partners in care. At the same time, GPs may be supported in ways to engage patients in their follow-up care. There is a need for research on how best to support GPs in screening for suicidality in ways that do not compromise patient trust and how to engage families in a constructive partnership.[31] This certainly applies to Flanders, considering that only 20% of the users of ASPHA, a helpline to assure the quality of care of suicidal patients, were GPs.[32]

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