

Post-abortion check-ups at Trento Family Planning Centre. Characteristics of those users who attended the check-up appointments and trends between 2003 and 2017

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Parole chiave: Interruzione Volontaria di Gravidanza, Consultorio Familiare, Italia, controllo ginecologico

Abstract

Background. The purpose of the study was to analyse the trend for post-abortion check-ups among users requesting the abortion certification from Trento Family Planning Center between 2003 and 2017.

Study Design. Retrospective case-control study.

Methods. During the study period, the Trento Family Planning Center issued a total of 3,870 abortion certificates (46% regarding foreign nationals). The social and demographic characteristics of those users who attended the post-abortion check-up appointments, and of those who did not, were compared.

Results. The proportion of resident users who returned for a post-abortion check-up increases significantly during the study period. The multiple logistic regression analysis model indicates that the factors associated with the likelihood of a return for a post-abortion check-up are: possession of medium to high academic qualifications (> 8 years) versus low qualifications, being a non-EU or Asian citizen, being a minor and being nulliparous or multiparous versus primiparous.

Conclusions. According to Family Planning Centers' philosophy, post-abortion check-ups are a good opportunity for promoting responsible procreation. The strategy for the management of the Trento Family Planning Center's users requesting an abortion led to an increase of the proportion of users who returned for the post-abortion check-up greater than is the case for other territorial Family Planning Centers.

Introduction

Family Planning Centers (FPCs) are important community-based services within the context of the prevention and care programmes for women, children and couples. More specifically, Law no. 194

of 22 May 1978 "Social protection of motherhood and voluntary interruption of pregnancy Act" gives them a key role with regard to the implementation of the law and, more generally, with regard to the prevention of voluntary terminations of pregnancy (1). As regards this latter aspect, the Progetto

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Obiettivo Materno Infantile [Mother & Child Target Project] (POMI) launched in 2000 (2) suggested calculating four specific indicators for describing and assessing the way FPCs should manage abortions:

- the percentage of abortion certificates issued by the FPCs,
- the time elapsing between issuance of certification and the procedure,
- the repeated abortion rate,
- the percentage of women who return to the FPCs after an abortion.

This last indicator measures the FPCs' potential capacity to alter the abortion trend in the population (3, 4). Various experiences in developed and other countries suggest that providing post-abortion check-ups may increase the woman's likelihood to use efficacious methods of contraception, such as to reduce the risk of further unwanted pregnancies and, consequently, of further abortions (5-12).

It is still difficult to analyse the work done by FPCs and, more specifically, to analyse the work they do in connection with abortion. This is due to a very widespread shortfall, despite certain praiseworthy exceptions (13-15) of an *ad hoc* information systems applied to FPCs. In most cases, the Province of Trento is no exception to this situation; the information systems used for FPCs focus on describing and analysing the services provided, with little possibility of interfacing with other local health authority information flows. This undoubtedly restricts the outcome assessment possibilities and explains the difficulties in comparing the data from one region with those of others. Since 2014, the Ministry of Health has collected a series of data regarding the work done by FPCs concerning abortion, including the number of abortion certificates issued and the number of post-abortion check-ups performed.

The active provision of post-abortion check-ups tends to be more efficacious when FPCs act in synergy with the system

of social and health services and offers users requesting an abortion a complete management programme (4). Various experiences of this kind have been conducted in Italy (16-20), including in the province of Trento, where the Provincial Health Authority has devised a programme for the management of FPC users requesting an abortion (21). The essential characteristics of this management are: interview with a multidisciplinary team; ultrasound scan to verify the pregnancy status; issue of the certificate for abortion; in case of decision of abortion by the woman, appointment for intervention (or medical treatment) at the hospital; contextual active post-abortion control offer, with a pre-arranged appointment within 3-4 weeks after the intervention; post-abortion check-up and contraception proposal.

This pathway has been implemented in a more complete manner at the City of Trento FPC, which is the most consolidated facility of the 11 FPCs in Trentino (the Trento Autonomous Province). At this facility, an electronic database of users requesting an abortion has been established, in order to enable the management and assessment of the programmes.

The present study analyses the trend for post-abortion check-ups amongst users requesting abortion certification at the Trento FPC between 2003 and 2017. The characteristics of those users who attended the check-up appointments and those who did not were also analysed.

Methods

Study design

This is a retrospective case-control study.

Study population

The study population was made up of those who contacted the Trento FPC between Jan 1.2003 and Dec 31.2017 and

who obtained, from the facility, a voluntary termination of pregnancy certificate, the document required for admission to an abortion service. It did not include those women who, having initially contacted the FPC for a voluntary interruption of pregnancy certificate, subsequently changed their mind either during the initial interview or during the gynaecologist's consultation. The caseload does not include women who asked for an abortion after 90 days of pregnancy, who are not usually managed by FPCs, pursuant to Italian law.

Data collection and statistical elaborations

The data concerning the users, which were recorded during the interview on a paper file, were progressively entered into an electronic database devised specifically using the EPI Info package and the variables of which largely coincided with those of the ISTAT D12 form, the tool used to monitor the abortion phenomenon amongst the population. The computerisation of these data was completed in April 2018. On the basis of the data recorded, it is possible to provide the number of voluntary terminations of pregnancy certificates issued during the period studied, making a distinction between the women residing in the area and non-residents and in accordance with their social and demographic characteristics. Any post-abortion check-ups are also recorded in the database. The proportion of post-abortion

check-ups is also analysed amongst those women who are resident of Trento or have their domicile there, taking into account the obstetric outcomes of those users who were issued an abortion certificate. This assessment was performed by linking the purpose-built FPC's database to the current information flows available (Cedap, ISTAT D11 flow, ISTAT D12 flow, hospital discharge summaries) by analysing, for each user in the 9 months subsequent to issuance of the certificate, the occurrence of a birth, an abortion or a miscarriage. To do so, the researchers also used the Hospital Information System, which also records admissions to Accident and Emergency (A&E) and for specialist visits. In each case, the data of interest were recovered by FPC's staff, on the basis of the archives made available by the Clinical Epidemiology and Assessment Service, which coordinates the epidemiological surveillance of births and abortions in the province of Trento. The factors associated with the likelihood of returning to the FPC for a post-abortion check-up were analysed using a logistic regression model, the results of which were expressed as the odds ratio (OR), with their corresponding 95% confidence intervals. The significance of the trends over time was analysed using the Cochran-Armitage test for trend. All the analyses were conducted by the Clinical Epidemiology and Assessment Service, on the basis of the anonymised archives made available by the Trento

Tab. 1 - Integration procedures developed over time by Trento Family Planning Center

Year	Procedure
2003	Computerized recording of abortion users data.
2004	Activation of cultural mediation for foreign users; Booking appointment for post-abortion check-ups.
2011	Formal collaboration with the main hospital of Trento for " <i>The women's support in the voluntary interruption of pregnancy</i> " project.
2012	Formal collaboration with the second main hospital of Trento (a private hospital) for " <i>The women's support in the voluntary interruption of pregnancy</i> " project.

FPC using SAS System 9.1.3 software. The indicator trends were also analysed in relation to the integration procedures developed over time by Trento FPC and shown in Tab. 1.

The proportion of users who returned for the post-abortion check-up at the Trento FPC was compared with the proportion of those users returned for a post-abortion check-up to the other FPCs of the Trento Province (years 2003 and 2017).

Institutional Review Board or Ethics Committee approval was not needed, because anonymized data were used for analyses and no type of intervention was performed, but the patient procedure was followed along the time. Informed consent was not needed too, in fact only administrative data were used for this research.

Results

Between 2003 and 2017, the Trento FPC issued a total of 3,870 abortion certificates, equal to 23.7% of all those abortion users managed in the province of Trento between 2003 and 2017 and equal to 57.6% of all users for whom a certificate was issued, in the study period, by a FPC either within or outside the province of Trento.

The majority of Trento FPC users resides or is domiciled in the province of Trento; an average of just 5.7% live outside the province, with a proportion that decreased significantly after 2011. The time trend indicates a reduction in the issuance of abortion certificates by the Trento FPC (equal to -21% between 2003 and 2017), which is consistent with the decrease in

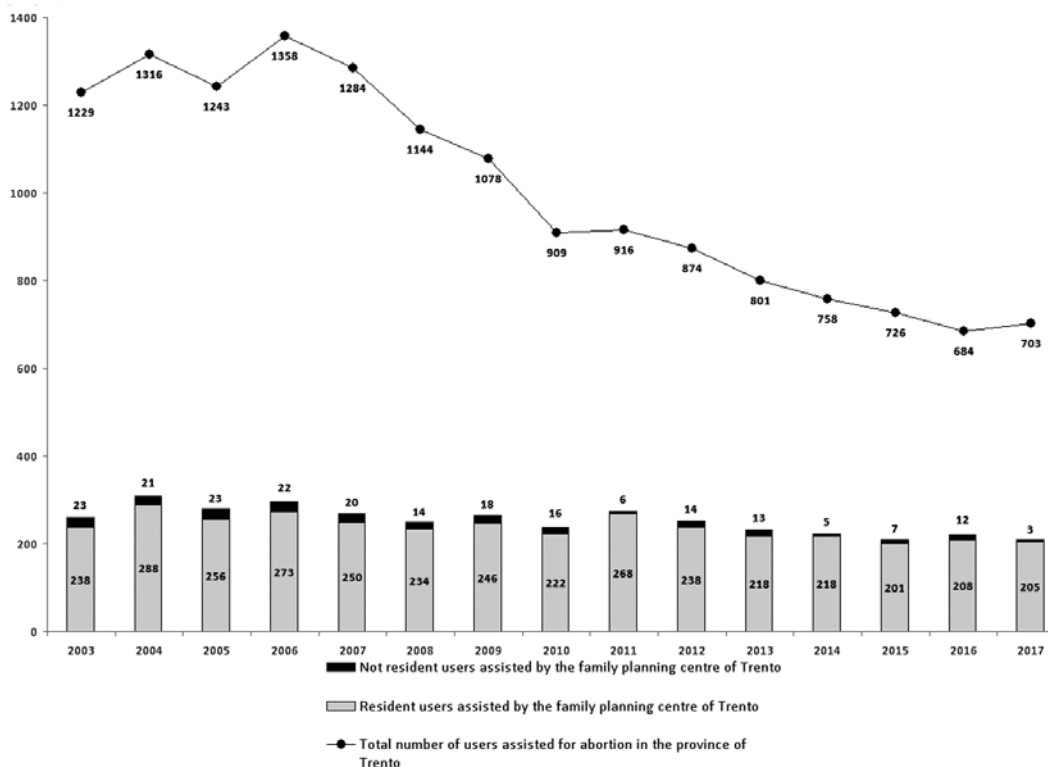


Fig. 1 - Abortion certificates issued by the Family Planning Center of Trento for resident and not resident users and total number of users assisted for abortion in the Province of Trento. Period 2003-2017

the number of abortions performed in the province, which dropped by 42% between 2003 and 2017 (fig. 1), and nationwide (-36% between 2003 and 2016) (22, 23).

In line with the decrease over time in the abortion phenomenon, both within the province of Trento and nationwide (23), the proportional increase in the number of abortion certificates issued by the FPCs since 2011 exceeded the number of certificates issued by general practitioners.

During the study period, 46% of Trento FPC users were foreign nationals; with a trend that increased until 2011, before returning to the original levels. As regards the women of foreign citizenship, the geographic areas most represented are non-EU Europe (34.2%), Africa (22.3%), Central and South America (17.7%) and European Union countries (16.4%). Asian women represent 9.4% of resident foreign users.

The modal age bracket was a 20-24 range, a characteristic that remained stable over time; the average age was 28.2 years, with a standard deviation of 7.4 (range 13-48 years). 47.9% of users were unmarried and living alone and 40.0% were married or

living with a partner; 46.3% of the women had medium - high academic qualifications (certificate of higher secondary education or college attendance), whereas less than 6% had a primary school certificate or lower.

The obstetric outcomes, which were analysed for 9 months after the date of issuance of the abortion certificate, were investigated in the 3,563 women resident or domiciled in the province of Trento, who represent 94.2% of all users who contacted the FPC for an abortion certificate. Not all cases for which an abortion certificate was issued ended up with an abortion. The linkage between the FPC archives and the various current databases made it possible to observe that, overall, net of the cases that could not be retrieved (n=46), 83.9% of the women had an abortion, 0.6% of pregnancies resulted in a miscarriage, after the woman had planned an abortion, 9.4% continued the pregnancy through to delivery and 6.0% decided to continue the pregnancy but subsequently had a miscarriage (24).

The total number of resident users who, between 2003 and 2017, returned to the Trento FPC for a post-abortion check-up

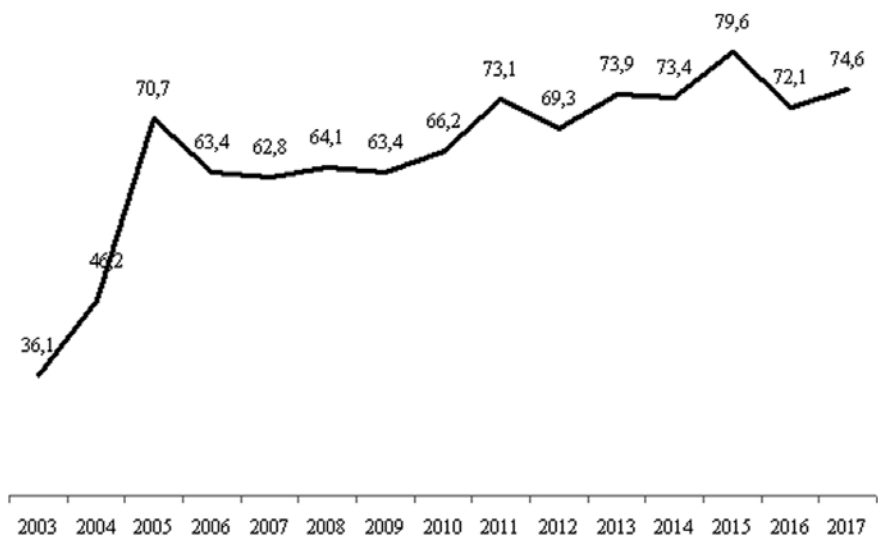


Fig. 2 - Proportion of resident users who returned to Trento Family Planning Center for a post-abortion check-up. Period 2003-2017

was equal to 2,327 (65.5%). The time trend, which is shown in fig. 2, would appear to increase significantly (p -value for the Cochran-Armitage test for trend <0.0001). The proportion of users who returned to the post-abortion appointment at the Trento FPC varied from 36.1% in 2003 to 74.6% in 2017, while for the other provincial FPCs the variation grew from 35.0% (2003) to 58.3% (2017).

The multiple logistic regression analysis model indicates that the factors associated with the likelihood of a return for a post-abortion check-up are (tab. 2): possession of medium to high academic qualifications

(> 8 years) versus low qualifications, being a non-EU or Asian citizen, being a minor and being nulliparous or multiparous versus primiparous.

Discussion and Conclusions

For FPs, post-abortion check-ups represent a standard operating procedure to be offered to all users in the context of a global and quality management of induced abortion assistance (25). Post-abortion check-ups are a good opportunity for promoting responsible procreation by actively providing

Tab. 2 - Results of the multiple logistic regression analysis model on the probability of a return for a post-abortion check-up

Variable	OR	95% Wald confidence intervals		
Age	<18	3.69	2.07	6.57
	18-19	1.17	0.77	1.78
	20-24	0.88	0.63	1.22
	25-29	0.86	0.62	1.18
	30-34	0.92	0.67	1.25
	35-39	0.87	0.64	1.20
	≥40	1.00	-	-
Nationality	Italian	1.00	-	-
	Asian	1.47	1.01	2.17
	Centre-South America	1.22	0.91	1.62
	African	0.90	0.70	1.18
	European Union	1.14	0.86	1.53
	Europe not EU	1.46	1.17	1.83
Educational level	Low	1.00	-	-
	Medium-high	1.40	1.19	1.65
Marital status	Unmarried-Single	1.00	-	-
	Married-cohabiting	0.90	0.72	1.14
	Already married	0.86	0.63	1.17
Parity	Primiparous	1.00	-	-
	Nulligravida	1.39	1.07	1.79
	Nulliparous	1.18	0.85	1.64
	Pluriparous	1.29	1.05	1.60
Previous abortion(s)	Yes	1.00	-	-
	No	0.89	0.73	1.08
Year		1.10	1.08	1.12

the women with information on efficacious birth control methods in order to minimise the risk of further unwanted pregnancies and/or repeated abortions (3, 4). Given that a further, significant decrease in the use of abortion may be possible by changing welfare and support policies in favour of parenthood, families and couples, especially the younger ones, this consultation should, in any case, be actively promoted as recommended by various international associations and agencies (26-28).

Returning to the FPC after the abortion would suggest the facility's ability to manage the user, by overseeing the various stages of the programme. The organisational adequacy of the service, professional skills and existence of a formal and shared pathway for the management of abortion, with the reference hospital facility, represent fundamental aspects for promoting the user's return to the FPC, in any situation considered (29-31). The FPC/ hospital interface is enabled when the procedure is booked at the hospital facility and, at the same time, an appointment is made for a post-abortion check-up at the same FPC. The professional and interpersonal skill sets of the members of the FPC staff can make an additional contribution, especially with regard to the more vulnerable users, such as foreign women, whose impact on the services has continued to increase since the early 2000s and for whom the repetition of abortion is about double compared to those in Italy: 36% vs. 21% (23).

Fundamental is also the availability of an information system able to describe the activity of FPCs and to evaluate the outcomes in the easiest and most accurate possible way (4).

It is important to note that, more than 40 years after they were established, there are significant differences between the various regions in terms of the organisation and the ability to form a network with the other health services, as highlighted in the past by

a survey conducted by the Ministry of Health in 2008 (32).

Between 2014 and 2017 there was an improvement in survey coverage, which nevertheless remains far from 100% and the data appear to be difficult to compare, not due merely to a diversity of coverage, but also to probable differences regarding organisation and relationships with hospital facilities, differences regarding management and, probably, also in the quality of activity data detection. This said, the most recent Ministerial survey concerning abortion trends in Italy shows that, taking into account the regions with at least 70% coverage, the proportion of post-abortion check-ups, out of the total number of abortion certificates issued, goes from 14.4 to 99.0%, with a median value of 46.4%. The value for the Province of Trento is approximately 66% (23), which is very similar to the average calculated by our study for the period between 2003 and 2017, but would appear to be lower than that recorded in this study for the specific year concerned by the annual abortion report conducted by the Ministry. Our study also describes an increase over time in post-abortion check-ups, an aspect on which the additional services provided by Trento FPC may have offered a positive contribution. In fact, comparing 2003 with 2017, a more marked increase in post-abortion check-ups has been shown for the Trento FPC (+38.5%) than for the other territorial FPCs (+23.3%). The increase highlighted for the Trento FPC is consistent with the average value of 37% reported by a large review of 550 studies on post-abortion care, carried out in various advanced and developing countries in the period 1994-2013 (33).

For an accurate calculation of the indicator "percentage of women who return to the FPC after abortion", it is generally necessary to obtain precise data regarding both the numerator and the denominator. As regards the numerator, the calculation would appear simpler and the measurement more

accurate, if only the users residing and/or domiciled in the area covered by the FPC are considered. In the case of Trento FPC, the calculation regards approximately 95% of the caseload. As regards the denominator, the surveillance over time of the users requesting termination certification shows that attending a Family FPC does not necessarily lead to a termination of a pregnancy and that any decision in this sense is strongly influenced by the characteristics of both the woman and the management of the case by the FPC staff. For this reason, it would appear important for the FPC to have a dedicated electronic database and for the FPC staff to have access to current Local Health Authority information flows. In our experience, this was made possible by close integration with the Epidemiology Service of the Local Health Authority that cares for the upkeep of these flows. This integration made it possible to analyse the returns to the FPC for post-abortion check-ups, for specific user subpopulations, an aspect that can help the FPC to optimise its operating criteria.

A greater proportion of returns to the FPC has been found in adolescents and foreigners, particularly from Asia and from Eastern Europe, categories of users at greater risk of repeated abortions and unintended pregnancies. A medium-high educational level facilitates the return to the FPC, an aspect that should make operators think about the skills and possibilities of intercepting the different needs of users and in particular those with a low health literacy level.

The literature data confirm that the rates of return to the FPC after an abortion, to respond to an active offer of contraception, are very heterogeneous in relation to the different characteristics of the users, such as age, ethnicity and personal obstetric history. Unlike our study, the studies available do not allow to highlight a greater return for a post-abortion check-up, in young or foreign women, also taking into account the different socio-cultural contexts and the

organizational differences of the services involved (34-39).

In the future, it will be possible to analyse post-abortion check-ups at all the FPCs in the province of Trento only if the abortion operating system used at Trento FPC can be used in all FPCs. This can be facilitated by the creation of a network between all FPCs and the possibility for them to refer to each other.

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Riassunto

Il controllo post interruzione volontaria di gravidanza presso il Consultorio Familiare di Trento. Caratteristiche delle donne che si presentano all'appuntamento di controllo e andamento temporale 2003-2017

Contesto. Lo studio ha l'obiettivo di analizzare il trend temporale dei controlli post- interruzione volontaria di gravidanza tra le donne richiedenti un certificato di aborto presso il consultorio familiare di Trento nel periodo 2003-2017

Disegno dello studio. Studio caso-controllo retrospettivo.

Metodi. Durante il periodo di studio, il consultorio familiare di Trento ha rilasciato un totale di 3.870 certificati di aborto (46% con nazionalità straniera). Sono state confrontate le caratteristiche socio-demografiche delle utenti ritornate al controllo rispetto a quelle non ritornate.

Risultati. La percentuale di utenti residenti che sono tornate per un controllo post-aborto aumenta in modo statisticamente significativo durante il periodo di studio. Il modello d'analisi regressione logistica multipla indica che i fattori associati alla probabilità di un ritorno per controllo post-aborto sono: titolo di studio medio-alto (> 8 anni) rispetto ad un livello d'istruzione basso, l'essere di cittadinanza europea non comunitaria o asiatica, rispetto ad una cittadinanza italiana, l'essere minorenni e l'essere nulligravida o pluripara rispetto a primipara.

Conclusioni. Per i consultori familiari, i controlli post-aborto sono una buona opportunità per promuovere una procreazione responsabile fornendo attivamente alle

donne informazioni sui metodi efficaci di contraccezione al fine di ridurre al minimo il rischio di ulteriori gravidanze indesiderate e/o aborti ripetuti.

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