ECONOMICS & Sociology

Monika Guzewicz, Sociological and Psychological Situation of Stillbirths in Population of Poland, *Economics & Sociology*, Vol. 7, No 1, 2014, pp. 174-182.
DOI: 10.14254/2071-789X.2014/7-1/15

SOCIOLOGICAL AND PSYCHOLOGICAL SITUATION OF STILLBIRTHS IN POPULATION OF POLAND

Monika Guzewicz
PhD candidate
Department of Adult Clinical Psychology/Institute of Psychology
The John Paul II Catholic University of Lublin
Lublin, Poland
E-mail: monika.guzewicz@gmail.com

Received: January, 2014
1st Revision: March, 2014
Accepted: April, 2014

DOI: 10.14254/2071-789X.2014/7-1/15

ABSTRACT. Losing a child before its birth is a situation encountered in every society. Poland has collected detailed demographic data on stillborn death, which describe the number of stillborn babies born after twenty-second week of pregnancy. The country is still lacking the demographic data for the number of abortions (i.e. before twenty-two weeks of gestation). In contrast, medical and psychological data show the death of a fetus as different at every stage of prenatal age. Additionally, medicine uses a much wider description of this phenomenon than the one used in sociology. In this paper, demographic data on the situation of stillbirths in Poland will be presented in regard of various aspects – maternal age, gender of a fetus, duration of pregnancy. A psychological characteristics of the phenomenon and the most common risk factors for losing a child in the prenatal period will be given. In addition, major psychological, sociological and medical consequences that occur for women who have experienced the loss of a child before its birth will be taken into account.

JEL Classification: I12, I14, I19

Keywords: stillbirth, miscarriage, loss of procreation.

Introduction

The situation of the women who experienced a child loss before giving actual birth is an important subject, as unsuccessful termination of pregnancy is a problem for many women and their families. The situation is even more difficult, as even pregnancy prophylaxis does not guarantee successful termination of pregnancy. Despite the development of medicine and prenatal diagnosis, the state health care does not make it widely available to pregnant women. Very often the decision whether to start or discontinue prenatal testing is based on economic factors. Prenatal tests in Poland are expensive and not refunded by government. What is more, a situation when a woman loses her child before its birth is still a taboo subject in Polish society, which does not help the parents to deal with their loss.

The terminology concerning stillbirths varies depending on the branch describing it. In sociological understanding, according to the Demographic Yearbook of Poland (2012), the issue of births and deaths is regulated as follows:

> "according to the definitions of terms concerning duration of pregnancy, miscarriages, stillbirths and live births, the following rules apply: stillbirth (death of fetus) is a complete expulsion of the fetus from the body system of the mother, either naturally or by external forces, after twenty-second week of pregnancy; after the removal, the fetus does not breathe nor show other signs of life (such as cardiac function, pulsation of the umbilical cord, or noticeable muscles contractions dependent on the will)".
>
> Vital statistics. Birth. Demographic Yearbook, p. 18

This definition of birth and death of newborns, recommended by the World Health Organization, in Poland came to life in 1994. The method of calculation is as follows: until 1993, the number of stillbirths was calculated based on the Reths' rule; quotient of the number of deaths of newborns in given year and a proportion of live births in given year. Since 1994 to present era, infant mortality rate and dead births is calculated as quotient of the total number of deaths of newborns and total number of live births registered in given year.

For statistical purposes, medical documentation concerning perinatal period should include all liveborn newborns, but also fetuses (born dead) "weighing at least five hundred grams in the moment of birth; and if birth weight is unknown – fetuses born after at least twenty-two weeks of pregnancy or measuring twenty-five centimeters in body length (from the top of the skull to the heel)".

There is a visible discrepancy in the understanding of dead births within sociological studies and psychological studies. Psychological description of births and deaths is based mainly on medical classification, which stresses gestational age and therefore stage of development. The gestational age of a fetus is closely connected to whether its organs have been formed and started to perform their functions, which enables the fetus to live independently from mother. The fetus's age during pregnancy is important when the chances of successful operation on the fetus in risk pregnancy have to be calculated. Unfortunately, not all development disorders can be diagnosed and treated in prenatal period. Fetuses who die during pregnancy are subjected to pathological examination in order to determine the cause of death, which is supposed to help parents with the subsequent reproductive efforts.

Demographic situation of stillbirths in Poland

Premature birth is a complex problem. The overall perinatal mortality affects up to seventy percent of newborns (Marianowski, Cyganek, 2002; Urban, 2002). Medically, premature birth is characterized as completing pregnancy between twenty-second and the end of thirty-seventh week of its duration (Dudenhausen, Pschyrembel, 2002, p. 89; Marianowski, Cyganek, 2002, p. 357). Premature birth itself is defined as giving birth to a dead fetus who weights more than five hundred grams or a live newborn, regardless of its birth weight or gestational age. The birth weight and gestational age are the criteria used in defining prematurity in birth.

In Poland, the incidence of preterm birth is within the range of six to eight percent. The aetiology is multifactorial (Dudenhausen, Pschyrembel, 2002, p. 89; Marianowski, Cyganek, 2002, pp. 357-358; Urban, 2002, p. 77). It is connected with socio-economic factors, experiencing stillborns during earlier procreating efforts and risk factors for failing current pregnancy. Although in many cases it is often impossible to determine the specific cause, it is possible to observe simultaneous occurrence of several factors.

Table 1. Preterm labour risk factors

Socio-economic factors	Data from interview	Risk factors in current pregnancy
Low socioeconomic factor[a,b]	History of pretermdeliveries[a,b]	Uterine bleeding[a]
Mother's age (under 18 or over 35)[a,b], and single[a]	Past births of dead fetuses[a,b]	Multiple pregnancy[a,b]
Numerous births in past[a]	History of more than two miscarriages (spontaneous or abortion)[a, c]	Placenta previa[a]
Exhausting physical work[b]		Gestational hypertension[a]
Cigarettes[a,b], alcohol, drugs[b]		Urinary tract infection[a]and systemic infection[b]
Exposure to stress and anxiety[b]		

Source: a – Dudenhausen, Pschyrembel, 2002, p. 89; b – Marianowski, Cyganek, 2002, pp. 357-358; c – Urban, 2007, p. 78.

At any time during pregnancy intrauterine death of fetus, in Latin called *graviditas obsolete*, can occur. Assistant professor Stefan Jaworski defines it as "fetal death before the fetus' complete expulsion or removal from the body system of the mother, irrespective of the duration of pregnancy. Fetus is declared dead if it does not breathe or show any other sign of life, such as heart rate, pulsation of the umbilical cord or muscle contractions dependent on the will" (Jaworski, 2002, p.146). Jaworski distinguishes (2002, p. 146):

- early fetus death (less than twenty weeks of gestation),
- intermediate fetus death (between twentieth and twenty-seventh week),
- late fetus death (more than twenty-seven weeks of gestation).

On the basis of demographic data, a decrease in the number of stillbirths in Poland can be observed. In 2009-2012 it decreased by eight point forty-one percent (see *Table 2*). The percentage of stillbirths in urban population decreased by ten point thirty-five percent, while in rural areas – by five point eighty-one percent. This is due to the availability of the medical care and improving its quality, which includes prenatal testing and possibility of carrying out the operation of fetus during pregnancy. The discrepancies observed in dead births between cities and rural areas can be explained with migration of young people to larger cities and the fact that patients with pregnancy risk are directed to the departments of pathology of pregnancy, which are located in cities, hence higher proportion of stillbirths in cities.

Table 2. Dead births in Poland in years 2009-2012, by the sex of newborns

Specification	2009	2010	2011	2012
Total	1748	1730	1653	1601
Male	907	896	874	854
Female	841	834	779	747
Cities	986	980	913	884
Male	495	484	491	464
Female	491	496	422	420
Rural areas	762	750	740	717
Male	412	412	383	390
Female	350	338	357	327

Source: Own calculations based on the Demographic Yearbook 2009-2012.

In contrast, the research based on the statistics taking into account the number of stillbirths due to the week of pregnancy in which the death of a fetus occurred, show a variety

of changes. Basing on the comparative analysis of years 2009 and 2012 (see *Table 2*) the research show a decrease by twenty-six percent in the number of stillbirths for a period of less than twenty-eight weeks of gestation, and seventeen point five percent in the twenty-eight to thirty-one weeks of pregnancy. In contrast, there was a slight increase (one point fifteen percent) during thirty-two to thirty six weeks of pregnancy, and very high increase of fourteen point five percent for gestational age of thirty-seven to forty-one weeks. The number of stillbirths after forty-two weeks of gestation is very low (only about five to nine cases).

When it comes to comparing the number of stillbirths between males and females, over the four years (2009-2012) the percentage of male stillbirths was higher than the female stillbirths. Successively, in 2009 there was a difference of seven point three percent; in 2010 of six point nine percent; in 2011 of ten point nine percent and of twelve point six percent in 2012. The analyzed rate for males was higher by three point eight percent in 2009, three point six percent in 2010, five point seven percent in 2011 and six point seven in 2012. On the basis of these data, a greater mortality of males can be observed, together with an increasing tendency in this respect (cf. *Table 3*). In addition, the data for both sexes confirm that the highest percentage of mortality is less than twenty-eight weeks gestational age of the fetus. The second in number comes mortality in the range of thirty-seven to forty-one weeks of gestation.

Table 3. Death births in Poland in 2009-2012, by the weeks of gestation

Specification	2009	2010	2011	2012
Total	1748	1730	1653	1601
42 weeks and more	7	9	6	5
41-37	432	526	487	495
36-32	438	419	409	443
31-28	280	272	280	231
Less than 28 weeks	577	504	470	427
Males	907	896	874	854
42 weeks and more	3	4	3	1
41-37	246	262	252	261
36-32	216	221	220	237
31-28	121	143	137	119
Less than 28 weeks	315	266	261	236
Females	841	834	779	747
42 weeks and more	4	5	3	4
41-37	186	264	235	234
36-32	22	198	189	206
31-28	159	129	143	112
Less than 28 weeks	262	238	209	191

Source: Own calculations based on the Demographic Yearbook 2009-2012.

According to Demographic Yearbooks, Poland has the highest number of dead births as compared to other European countries. In 2000, Poland was on twenty-eighth place (with the number of still births: one thousand one hundred eighty-two) when it comes to the number of stillbirths, and in 2011 – on twenty-ninth position (with one thousand six hundred forty-one stillbirths). At the end of twelve years span, the number of stillbirths decreased in twenty-six European countries; in four countries the trend remained at the same level (Belgium, Czech Republic, Montenegro and Serbia). However, in four countries a significant increase in the number of stillbirths was recorded (Bulgaria, Denmark, France, Switzerland). The French population had the most noticeable growth in the number of stillbirths among all European

countries (in 2000 there were three thousand nine hundred stillbirths, in 2010: eight thousand seven thousand eighty-one stillbirths) (see *Table 4*).

Table 4. Dead births in European countries

Countries	Years	Late fetal deaths		Trend
		in absolute figures	per 1000 of live births	
Austria	2000	331	4,2	↓
	2011	294	3,8	
Belgium	2000	515	4,5	↔
	2011	574	4,5	
Belarus	2000	404	4,3	↓
	2011	304	2,8	
Bulgaria	2000	555	7,5	↑
	2011	556	7,8	
Croatia	2000	229	5,2	↓
	2011	145	3,5	
Czech Republic	2000	259	2,8	↔
	2011	303	2,8	
Denmark	2000	248	3,7	↑
	2011	313	4,8	
Estonia	2000	64	4,9	↓
	2011	57	3,9	
Finland	2000	231	4,1	↓
	2011	112	1,9	
France	2000	3900	4,8	↑
	2011	8781	10,4	
Germany	2000	3084	4,0	↓
	2011	2387	3,6	
Greece	2000	452	4,4	↓
	2011	345	3,2	
Hungary	2000	538	5,5	↓
	2011	392	4,5	
Ireland	2000	325	5,9	↓
	2011	294	4,0	
Ireland	2000	15	3,5	↓
	2011	4	0,9	
Italy	2000	1818	3,3	↓
	2011	1422	2,7	
Latvia	2000	158	7,7	↓
	2011	124	6,6	
Lithuania	2000	221	6,4	↓
	2011	148	4,3	
Macedonia	2000	266	9,0	↓
	2011	211	8,6	
Montenegro	2000	42	5,0	↔
	2011	43	5,0	
Netherlands	2000	944	4,7	↓
	2011	620	3,4	
Norway	2000	225	3,8	↓
	2011	198	3,3	
Poland	2000	1641	4,3	↓

	2011	1182	3,0	
Portugal	2000	444	3,7	↓
	2011	227	2,3	
Romania	2000	1393	5,9	↓
	2011	811	4,1	
Russia	2000	8494	6,7	↓
	2011	7934	5,3	
Serbia	2000	370	5,0	↔
	2011	328	5,0	
Slovakia	2000	215	3,9	↓
	2011	190	3,1	
Slovenia	2000	68	3,7	↓
	2011	59	2,7	
Spain	2000	1439	3,6	↓
	2011	1527	3,2	
Sweden	2000	355	3,9	↓
	2011	429	3,8	
Switzerland	2000	283	3,6	↑
	2011	349	4,3	
Ukraine	2000	3707	7,1	↓
	2011	3300	6,6	
United Kingdom	2000	3594	5,3	↓
	2011	4201	5,2	

Source: Own calculations based on the Demographic Yearbook 2009-2012.

Noteworthy are the data related to maternal age in which the loss caused by stillbirth occurred. There is a significant decrease in the number of stillbirths in all age groups of mothers. The largest percentage drop, as much as about twenty percent, occurred in the group of mothers aged 20-24 years. Respectively, a drop by ten point five percent occurred in the age group of 25-29 years-olds and eight point one percent in the group of 30-34 year-olds. The biggest discrepancy occurs between women aged 25-29. The percentage of the number of losses among these mothers ranges from twenty-nine percent to thirty-two percent. In 2009 it amounted to thirty-two point twenty-six percent, in 2010 – twenty-nine point seventy-six percent, in 2011 – twenty-nine point sixty-four percent and in 2012 – thirty-one point fifty-four percent (cf. *Tab. 5*).

Table 5. Stillbirths in Poland by maternal age, in years 2009-2012

Specification	2009	2010	2011	2012
Under 20				
Total	92	97	95	87
Males	46	53	45	51
Females	46	44	50	36
20-24				
Total	336	303	291	269
Males	171	168	157	141
Females	165	135	134	128
25-29				
Total	564	515	490	505
Males	289	248	255	268
Females	275	267	235	237

30-34				
Total	435	456	423	400
Males	234	248	228	212
Females	201	217	195	188
35-39				
Total	236	279	261	250
Males	116	142	138	134
Females	120	137	123	188
40-44				
Total	77	64	89	84
Males	45	32	48	45
Females	32	32	41	39
45 and more				
Total	8	7	4	6
Males	6	5	3	3
Females	2	2	1	3
Total	1748	1730	1653	1601

Source: Own calculations based on the Demographic Yearbook 2009-2012.

Worth noticing is the fact that there are no relevant statistics on fetuses deaths before twenty-second week of pregnancy. In medical and psychological literature assumptions that about ten to fifteen percent of pregnancies each year end in spontaneous miscarriage (Skrzypczak, 2002) may be found. On the other hand, professor Grzegorz Bręborowicz, Head of the Department of Perinatology and Gynecology, University of Medical Sciences in Poznań (2010) states that up to twenty-five percent of all women who become pregnant have lost one or more pregnancies. In Poland, the proportion of pregnancy losses is at a constant level; in the years 1981-2001 it ranged between nine point eight percent and eleven point one percent. Based on the results, it was found that the proportion of lost pregnancies in the early period of gestation ranges from fifteen to forty percent (Barton-Smoczyńska, 2006). A fairly significant discrepancies can be observed in the *Table 5*.

Psychological approach to the problem of stillbirths

Miscarriage, premature birth and intrauterine fetal death are classified for statistical purposes as "stillbirth". However, for medical and psychological purposes as mentioned above, more precise distinction is applied. It turns out that the duration of pregnancy and the moment of death of a fetus are associated with a variety of physiological as well as psychological changes and therefore assistance directed towards patient should be carefully planned and tailored to their needs. Unfortunately, in Polish society there is a lack of specific and widely accessible psychological support and therapy for women who have experienced the death of a child before its birth.

This problem is underestimated and it turns out that women and their families are left to fend for themselves. Hospitals lack psychologists, and even if they are available, they consult only those patients who clearly and visibly react to the loss of a fetus or newborn. A patient who is hysterical, aggressive and very emotional will be subjected to psychological consultation faster than a patient who is emotionally numb. In larger cities, support groups for women who have had miscarriages are formed. The therapy is carried out according to the approach of New Experience for Survivors of Trauma. All in all, the situation in big cities is improving.

Death of a fetus before birth often affects the medical staff in the same emotional way, though coldness and lack of emotional approach towards the patient and her baby also happen. Therefore, medical staff must do their utmost not to act by routine and downplay the death of a fetus or newborn, but provide medical help. Iit is important to properly train nurses and medical staff, as well as make doctors notice the problem itself.

In literature, the phenomenon of depressive symptoms deserves special attention (Barton-Smoczyńska, 2006; Kornas-Biela, 1999, Swanson, 2000). Depressed woman often avoids contact with others (Abrahams, 2010), has lowered self-esteem, blames herself for the death of a newborn and tries to punish herself (Barton-Smoczyńska, 2006). The most common symptoms in affective sphere are: being depressed, having pessimistic vision of future, anhedonia, feelings of guilt, feelings of inferiority, crying, and even thoughts of suicide. Women are uptight and suffer from a number of physiological symptoms, such as sleep disturbances, fatigue, loss of appetite and loss of interest in sexual contact.

Conclusion

The results entitle to several conclusions: the situation of losing a fetus in the prenatal period is defined differently in sociological and psychological understanding. They are different in terms of both naming and classification method. Sociology understands reproductive losses generally as stillbirths, whereas psychology is based on medical differences. Therefore it describes miscarriage, premature birth, stillbirth and sometimes also early death of a newborn. This classification takes into account the age of the fetus (the duration of the pregnancy), the fetus' weight and body length.

Both statistical and medical data give evidence of declining number of stillbirths in Poland. However, this is still a very high number of deaths. Without question this is due to the level and availability of specialist medical care. In addition, an important factor in decreasing the number of still births is improvement of preventive methods. An important aspect is also to offer adequate medical and psychological support for parents who have experienced the loss of a child during pregnancy, in order to prevent irreversible consequences on a woman's body and psychological sense of resentment and fear of another procreative failure.

References

Abrahams, P. (2010), *Ciąża*, Wydawnictwo Świat Książki, Warszawa.

Barton-Smoczyńska, I. (2006), *O dziecku, które odwróciło się na pięcie*, NAF, Łomianki.

Bręborowicz, G.H. (2010), *Ciąża wysokiego ryzyka*, Ośrodek Wydawnictw Naukowych, Poznań.

Dudenhausen, J.W., Pschyrembel, W. (2002), *Położnictwo praktyczne i operacje położnicze*, Wydawnictwo Lekarskie PZWL, Warszawa.

Jaworski, S. (2002), Ciąża obumarła, w: *Położnictwo*, Podręcznik dla położnych i pielęgniarek, red. G. H. Bręborowicz, WydawnictwoLekarskie PZWL, Warszawa, pp. 146-151.

Kornas-Biela, D. (red.) (1999), *Oblicza macierzyństwa*, Redakcja Wydawnictwo KUL, Lublin.

Marianowski, L., Cyganek, A. (2002), Poród przedwczesny, w: *Położnictwo i ginekologia*, Podręcznik dla studentów, red. T. Pisarski, Wydawnictwo Lekarskie PZWL, Warszawa, pp. 357-363.

Rocznik demograficzny (2010), Zakład Wydawnictw Statystycznych, Warszawa.

Rocznik demograficzny (2011), Zakład Wydawnictw Statystycznych, Warszawa.

Rocznik demograficzny (2012), Zakład Wydawnictw Statystycznych, Warszawa.

Rocznik demograficzny (2013), Zakład Wydawnictw Statystycznych, Warszawa.

Skrzypczak, J. (2002), Poronienie, w: *Położnictwo i ginekologia*, Podręcznik dla studentów, red. T. Pisarski, Wydawnictwo Lekarskie PZWL, Warszawa, pp. 334-346.

Swanson, K. M. (2000), Predicting Depressive Symptoms after Miscarriage: A Path Analysis Based on the Lazarus Paradigm, *Journal of women's health & gender-based medicine*, Vol. 9, nr 2, pp. 191-206.

Urban, J. (2002), Ciąża o przebiegu nieprawidłowym, w: *Położnictwo*. Podręcznik dla położnych i pielęgniarek, red. G.H. Bręborowicz, Wydawnictwo Lekarskie PZWL, Warszawa, pp. 77-83.