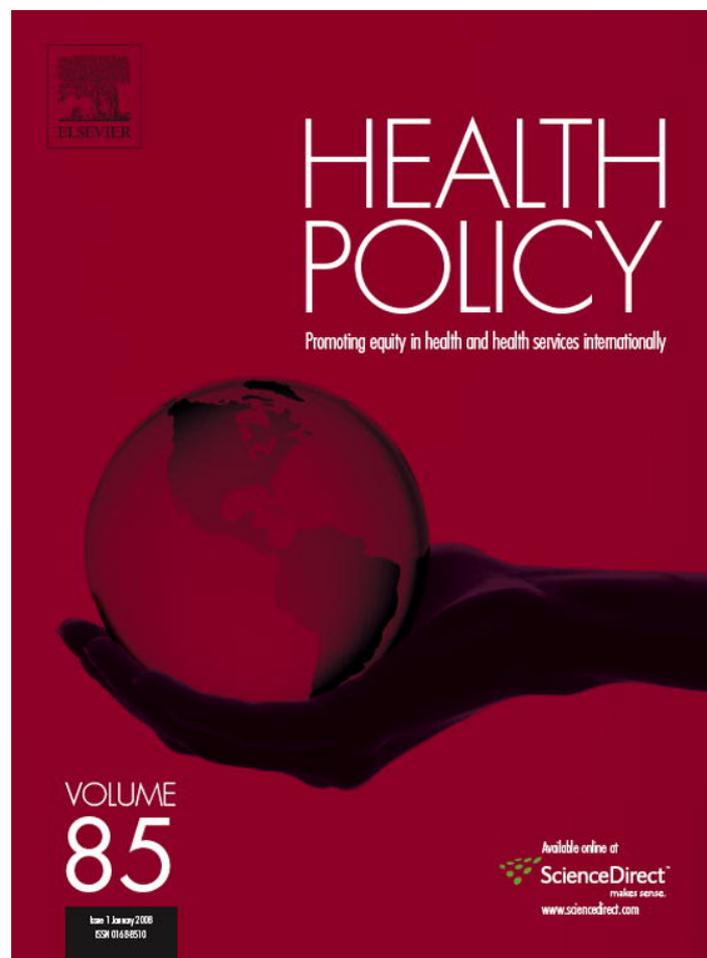


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Palestinian women's pregnancy intentions: Analysis and critique of the Demographic and Health Survey 2004

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Abstract

Objectives: The Palestinian DHS2004 reports on pregnancy intentions and their determinants are analyzed for the first time. Through this analysis, the survey instrument limitations are also highlighted.

Methods: Data on 15–49 years old ever married, non-pregnant women reporting on their last pregnancy were selected from a nationally representative cross sectional survey dataset.

Results: Older women were more likely not to desire the pregnancy at all, and younger women more likely to have desired to wait; with higher reports of not desiring the pregnancy at all or desiring to wait among those with a higher number of children; with higher reports of not desiring the pregnancy at all, or desiring to wait, among women who reported ever using family planning methods. Women who experienced prenatal and postnatal complications reported higher levels of having desired to wait or not having wanted the pregnancy at all, calling for the inclusion of process measures in pregnancy intention studies.

Conclusions: While some of our findings are comparable to those cited in the international literature, the analysis was limited to the type of questions asked in the Palestinian DHS survey. There is a need to further develop the survey instrument in order to address women's needs from a public health policy perspective. We call for the inclusion of additional social measures to identify some of the contextual factors that influence pregnancy intentions.

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Keywords: Pregnancy intentions; Process indicators; Palestinian women; Demographic and health survey; Occupied Palestinian Territory

1. Introduction

The inclusion of a question on pregnancy intentions (intended, mistimed or unwanted) has gradually become part of routine worldwide surveys [1–4] including the Demographic and Health Surveys (DHS). However, the meaning of pregnancy intentions and

the assumed stability of intendedness responses are increasingly being questioned, calling for rethinking the concept and the need for developing new measures that would provide more relevant information for policy and program planning purposes [5]. A key issue for consideration is the validity of retrospective assessments of pregnancy intentions, where in DHS surveys, women are asked if they desired to be pregnant at the time of conception, or desired to wait or did not want the pregnancy at all, with conception having occurred up to 3 or even 5 years preceding the survey response

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in some versions. The question is designed to reveal women's feelings and preconception attitudes towards pregnancy [6]. Yet, feelings and attitudes can change substantially during pregnancy and afterwards, and are subject to rationalization (or perhaps justification) after the fact, raising questions as to what is being measured, and hence, the relevance of responses to policy making and planning.

Moreover, the literature on the subject has generally focused on unmet needs for contraception, abortion services, and family planning education [7–9] suggesting that simple access to services and education can bring about a resolution of the problem. Although access to services, education and counseling are of course important, this remains a microscopic and simplistic view of women's realities which may lead to blaming the victim, as access to services and education do not necessarily translate into the reduction of the risk of new unplanned pregnancies [10]. Nor do they mean that the freedom to choose and act on the choice made, or that the basic human right of couples and individuals to achieve the desired family size responsibly and freely [11] is realized through contraceptive and abortion service provision alone. This is because women's reproductive behavior is socially constructed, where the exercise of choice in reproductive intentions is constrained by women's broader contexts and the realities of their social worlds. Clearly, more fundamental and broader level issues than access to services need to also be addressed, including changes in the structures of domination over women's freedoms of various sorts, including reproductive freedoms and rights. In the Middle East and North Africa, law, social practices, traditions, religious and cultural constructs all interact to seriously limit women's abilities to realize their reproductive intentions [12] and take charge of their lives, as is the case elsewhere given that gender discrimination is universal, although expressed in modified forms in line with context.

Likewise, unmet need as a concept cannot be simply construed as unmet need for contraception and abortion [13]. The concept also includes the need of couples for fertility care, a basic human right that is often neglected in the translation of the concept into policies and programs, or considered a minor problem [14].¹

¹ Initial and tentative analysis of the Demographic and Health Survey 2004 data for the Occupied Palestinian Territory (OPT) indicates

This is particularly relevant to couples of the developing world where the focus is often on coercive population control, instead of on the underlying factors for excessive population growth [15]. In the case of the OPT, the rapid population growth and high fertility levels are unfortunately usually highlighted as either a threat to Israelis, or as a weapon of resistance by Palestinians [16]. The considerable differences in fertility levels between the West Bank and Gaza Strip are also a focus of research attention, and routine comparative assessments of these regional differences [17]. The threat versus weapon views, however, do not take into consideration the contextual aspects that determine high fertility levels especially in the Gaza Strip, and the lack of state benefits in old age, where children function in lieu of social security, among other considerations [18].

In working to locate some of the correlates of unintended pregnancies, the literature seems to focus on behavioral determinants, such as the ineffective use or non-use of contraceptives [19,20] or the time of initiation of prenatal care [21,22] both possibly associated with access to and quality of services; selected demographic and socio-economic indicators, such as maternal age, education, urban/rural residence and region [23,24] and birth outcomes, such as the infant's birth weight [8,22]. In this article, which is part of a larger investigation of what Palestinian women want for reproductive health care, we work with what is available: a DHS2004 data set obtained by using the customary DHS instrument used worldwide. We make use of the available data set to complete an analysis of Palestinian women's pregnancy intentions, which has not been attempted previously. In addition to including behavioral, socio-economic and infant related outcome indicators in our analysis, we also investigate the degree to which intendedness reports are associated with the process/experience women undergo during pregnancy and childbirth, with biomedical prenatal and post natal

an estimated infertility rate of about 7%. Given that married women of childbearing age constitute around 22% of the total population <http://www.moh.gov.ps/index.asp?deptid=1&pranchid=44&action=details&serial=212> (accessed September 8 2006) and that the projected population of the OPT for 2004 was 3,637,529 (http://www.pcbs.gov.ps/Portals/_pcbs/populati/demd2.aspx accessed September 8, 2006), we estimate that around 56,000 women (i.e. couples) are affected by infertility problems and with an unmet need for fertility care, a number that is not unimportant.

complications and type of delivery she underwent as measures of this process (limited by what is available in the data set). We compare the responses of women from the Occupied Palestinian Territory (OPT) with those found in the international literature, working to discern patterns of commonalities and differences. In the process, we pay special attention to the conceptual and methodological gaps revealed by the analysis of available Palestinian data sets, i.e. standard DHS' based on the worldwide used instrument, in the hope that this will assist in strengthening the argument for the need to continue modifying DHS surveys to include a broader perspective of women's health, needs, constraints and realities. Indeed, the Palestinian Central Bureau of Statistics has already taken a step in this direction by including a special section on single women's health in the DHS2004, usually absent from the standard instrument which focuses on maternal and child health and family planning, as if suggesting that women's health and reproductive health concerns pertain to her being a biological producer only. In the end, it is hoped that the DHS will eventually be transformed to reflect its true name, by including demographic and health indicators on all sectors of the population, and not just women of childbearing age and their children.

2. Methods

The PCBS-DHS2004 data set included 5799 households: 3746 on the West Bank and 2053 in the Gaza Strip. The list of all Palestinian households was constructed by updating identification variables from the data collected in the 1997 Population Census. The Master sample was used as the sample frame for the DHS2004. The target population consisted of all Palestinian families that usually reside in the OPT. The sample that was drawn is representative of all of the Palestinian population. The survey targeted two sub-populations: ever married women 15–54 and children under 5 years old.

The fieldwork was completed in mid 2004. The response rate was 96.1%–95.2% for the West Bank and 97.3% for the Gaza Strip. Data on 15–49 years old ever married, non-pregnant women who reported on the last pregnancy ending with a live birth in the last three years preceding the survey was selected. The

final data set contained 1981 women reporting on their last child's birth experience.

Descriptive analyses were performed to inspect the frequency distribution of pregnancy intentions (expressed as desired, desired to wait, did not desire at all) in relation to selected characteristics. Those included socioeconomic correlates: maternal age, age at first marriage, education and employment status, husband's education and employment status, urban/rural/refugee camp residence and regions – West Bank and Gaza Strip; attitudinal/behavioral correlates: ever use of family planning, receipt of prenatal care during the last pregnancy – yes or no, current number of children, and ideal number of children; infant related outcomes: sex and birth weight of child; and pregnancy process correlates: prenatal complications reported by women (eclampsia, gestational diabetes, signs of premature delivery, hypertension, vaginal bleeding, urinary tract infection, acute headache, high fever, swelling in the body or face, convulsions, anemia and reproductive tract infections); delivery status (normal, instrumental, caesarean); and post natal complications defined as having the following symptoms during the first 8 weeks after delivery (bad smell excretions, severe hemorrhage, high fever, convulsions, mastitis and depression).

Two scales measuring the pregnancy process were constructed. The first combined the 12 prenatal complications included in the research instrument into one variable ranging from 0 (i.e. no complications) and up to 12 (reporting all 12 complications). The second scale combined the six post-natal complications into another variable ranging from 0 up to 6. Both scales were then regrouped into three categories: no complications, 1–2 complications, 3 or more complications. Two separate multiple logistic regression models were performed to assess the association between pregnancy intention reports of having desired to wait ($n=414$) compared to reports of having desired to become pregnant ($n=1649$) as the dependent variable in the first model; and reports of not having desired the pregnancy at all ($n=424$) compared to reports of having desired to become pregnant as the dependent variable in the second model, and the selected determinants outlined above. The analysis was repeated using multinomial logistic regression revealing similar results to those obtained in the separate regression analyses. Because of the ease of readability and interpretation,

Table 1
Percentage distribution of pregnancy intentions by selected variables^a

| | | Pregnancy intentions | | | <i>p</i> -value |
|--------------------------------|----------------------|----------------------|-------------------------|-------------------------------|-----------------|
| | | Desired (64.2%) | Desired to wait (16.7%) | Did not desire at all (19.1%) | |
| Socio-demographic | | | | | |
| Age | <34 | 822 (73.5) | 169 (15.1) | 127 (11.4) | <0.001 |
| | ≥35 | 195 (51.0) | 18 (4.7) | 169 (44.2) | |
| Education | Secondary or less | 1097 (63.6) | 290 (16.8) | 338 (19.6) | 0.45 |
| | Above than secondary | 173 (67.1) | 41 (15.9) | 44 (17.1) | |
| Type of locality | Urban | 712 (65.0) | 159 (14.5) | 224 (20.5) | 0.031 |
| | Rural | 340 (62.2) | 113 (20.7) | 94 (17.2) | |
| | Camp | 218 (63.9) | 59 (17.3) | 64 (18.8) | |
| Region | West bank | 732 (62.6) | 221 (18.9) | 216 (18.5) | 0.003 |
| | Gaza strip | 538 (66.1) | 110 (13.5) | 166 (20.4) | |
| Attitudinal—behavioural | | | | | |
| Ever used family planning | No | 329 (85.2) | 36 (9.3) | 21 (9.5) | <0.001 |
| | Yes | 941 (58.9) | 295 (18.5) | 361 (22.6) | |
| Received prenatal care | No | 38 (57.6) | 7 (10.6) | 21 (31.8) | 0.023 |
| | Yes | 1230 (64.2) | 324 (16.9) | 361 (18.9) | |
| No. children | 0–1 | 196 (92.5) | 13 (6.1) | 3 (1.4) | <0.001 |
| | 2–5 | 816 (66.5) | 261 (21.3) | 150 (12.2) | |
| | 6–16 | 258 (47.4) | 57 (10.5) | 229 (42.1) | |
| Ideal no. of children | 0–3 | 208 (59.9) | 64 (18.4) | 75 (21.6) | 0.001 |
| | 4–5 | 808 (66.2) | 207 (17.0) | 205 (16.8) | |
| | 6+ | 628 (68.9) | 142 (15.6) | 142 (15.6) | |
| Infant outcomes | | | | | |
| Sex of the child | Male | 815 (65.3) | 210 (16.8) | 223 (17.9) | 0.46 |
| | Female | 831 (67.4) | 203 (16.5) | 199 (16.1) | |
| Child weight (kg) | (Mean, S.D.) | 3.233, 0.895 | 3.233, 0.550 | 3.206, 0.664 | 0.84 |
| Pregnancy process | | | | | |
| Prenatal complications | No complication | 519 (69.1) | 103 (13.7) | 129 (17.2) | <0.001 |
| | 1–2 complications | 488 (63.0) | 141 (18.2) | 146 (18.8) | |
| | >3 complications | 263 (57.5) | 87 (19.0) | 107 (23.4) | |
| Mode of delivery | Normal | 1047 (64.4) | 280 (17.2) | 298 (18.3) | 0.01 |
| | Instrumental | 22 (57.9) | 6 (15.8) | 10 (26.3) | |
| | CS | 170 (64.6) | 31 (11.8) | 62 (23.6) | |
| Postnatal complications | No complication | 801 (66.1) | 190 (15.7) | 220 (18.2) | <0.001 |
| | 1–2 complications | 376 (63.4) | 104 (17.5) | 113 (19.1) | |
| | >3 complications | 93 (52.0) | 37 (20.7) | 49 (27.4) | |

^a *N* = 1981.

we opted to present the results of the separate regression models.

3. Results

Our sample consisted of ever-married non-pregnant women 15–49 years old. Of the total, 74.5% were under the age of 35. Thirteen percent reported having had more than a high school education. Fifty-nine percent resided in the West Bank and 41% in the Gaza Strip. Fifty-five percent lived in urban, 28% in rural locales and 17% in refugee camps housing those displaced in the 1948 and 1967 Arab-Israeli wars.

Of the total, 64% reported that they desired their last pregnancy, 16.7% reported that they desired to wait, and 19.3% reported that they did not desire the pregnancy at all. There were significant differences in these reports by age, where 11.4% of women 34 years or younger reported not having desired the last pregnancy at all compared to a high of 44.2% among women 35 years or older ($p < 0.001$). Women from the Gaza Strip reported significantly higher levels of

not desiring the pregnancy at all, at 20.4% compared to 18.5% for West Bank women; while West Bank women reported significantly higher levels of the desire to wait, at 18.9% compared to 13.5% for women in the Gaza Strip ($p = 0.003$). Significant associations were found between attitudinal/behavioral correlates and pregnancy intentions. Women reporting the ever use of family planning methods, and not having received prenatal care during the last pregnancy had significantly higher levels of not desiring the pregnancy at all ($p < 0.001$), at 22.6% and 31.8% respectively, compared to 9.5% and 18.6% among women who never used family planning methods and who reported receiving prenatal care (Table 1). The table also demonstrates that women with a large number of children reported significantly higher levels of not desiring the pregnancy at all ($p < 0.001$). The opposite pattern was observed with the stated ideal number of children, where the percentage of women who did not desire the pregnancy at all declined with increasing stated ideal number of children ($p = 0.001$). Prenatal and post natal complications were significantly associated with pregnancy intention responses as well, with women reporting

Table 2

Logistic regression model results for socio-demographic, behavioral and pregnancy process variables as predictors of the 'desire to wait' pregnancy intention reports

| | | Odds ratio | 95% confidence interval | <i>p</i> -value |
|-------------------------|--------------|------------|-------------------------|-----------------|
| Age | >35 | 1 | | |
| | <35 | 0.33 | (0.18–0.59) | <0.001 |
| No. of children | | 1.11 | (1.01–1.23) | 0.035 |
| Ideal no. of children | | 0.86 | (0.77–0.96) | 0.009 |
| Use of family planning | Yes | 1 | | |
| | No | 2.49 | (1.42–4.38) | 0.001 |
| Region | Gaza Strip | 1 | | |
| | West Bank | 1.40 | (0.98–2.01) | 0.06 |
| Prenatal complications | 0 | 1 | 1 | |
| | 1–2 | 1.39 | (0.94–2.08) | 0.09 |
| | >3 | 1.61 | (1.01–2.57) | 0.05 |
| Mode of delivery | Normal | 1 | 1 | |
| | Instrumental | 1.46 | (0.51–4.16) | 0.48 |
| | CS | 1.18 | (0.74–1.88) | 0.48 |
| Postnatal complications | 0 | 1 | 1 | |
| | 1–2 | 1.05 | (0.72–1.52) | 0.81 |
| | >3 | 1.08 | (0.56–2.09) | 0.82 |
| Prenatal care | Yes | 1 | | |
| | No | 0.72 | (0.21–2.48) | 0.61 |

three or more prenatal or three or more postnatal complications reporting significantly higher levels of not desiring the pregnancy at all, compared to women with less or no complications at all ($p < 0.001$). There were no associations between pregnancy intention reports and the education of women or infant related outcomes (birth weight, and interestingly, sex of child, as we had expected that the desire for the pregnancy would be influenced by male child preference).

Logistic regression analysis revealed that age, total number of children, ideal number of children, ever use of family planning, and prenatal complications were significantly associated with the 'desired to wait' pregnancy intention report (Table 2). Older women were less likely to report having had the 'desire to wait' than younger women under 35 years of age (OR: 0.33, 95% CI: 0.18–0.59); as the number of children increased, women were more likely to report having had the 'desire to wait' (OR: 1.11, 95% CI: 1.01–1.23). As expected, women were less likely to report having had the 'desire to wait' as the reports on the ideal number of children increased (OR: 0.86, 95% CI: 0.77–0.96). Women who reported ever using family planning methods were also more likely to report having had the

'desire to wait' (OR: 2.59, 95% CI: 1.42–4.38). Finally, women who reported three or more prenatal complications were more likely to report having had the 'desire to wait' (OR: 1.61, 95% CI: 1.01–2.57).

For those who reported not having 'desired the pregnancy at all', logistic regression analysis indicate a significant association with the women's age, total number of children, ideal number of children, ever use of family planning methods and postnatal complications (Table 3). Older women were significantly more likely to report 'not having desired the pregnancy at all' than younger women (OR: 1.63, 95% CI: 1.11–2.39). As was the case with the 'desire to wait' responses, as the number of children of women increased, they were more likely to report 'not having desired the pregnancy at all' (OR: 1.59, 95% CI: 1.46–1.75). In contrast, as reports of the ideal number of children increased, women were less likely to report 'having not desired the pregnancy at all' (OR: 0.77, 95% CI: 0.76–0.85). Women who reported the ever use of family planning methods were more likely to report 'not having desired the pregnancy at all' (OR: 3.49, 95% CI: 1.78–6.86). Finally, women who reported three or more postnatal complications were more likely to report 'not hav-

Table 3

Logistic regression model results for socio-demographic, behavioral and pregnancy process variables as predictors of unwanted pregnancy

| | | Odds ratio | 95% confidence interval | <i>p</i> -value |
|-------------------------|--------------|------------|-------------------------|-----------------|
| Age | >35 | 1 | | |
| | <35 | 1.63 | (1.11–2.39) | 0.013 |
| No. of children | | 1.59 | (1.46–1.75) | <0.001 |
| Ideal no. of children | | 0.77 | (0.79–0.85) | <0.001 |
| Use of family planning | Yes | 1 | | |
| | No | 3.49 | (1.78–6.86) | <0.001 |
| Region | Gaza Strip | 1 | | |
| | West Bank | 1.15 | (0.82–1.59) | 0.42 |
| Prenatal complications | 0 | 1 | | |
| | 1–2 | 1.29 | (0.89–1.87) | 0.18 |
| | >3 | 1.27 | (0.82–1.97) | 0.27 |
| Mode of delivery | Normal | 1 | | |
| | Instrumental | 0.97 | (0.35–2.67) | 0.95 |
| | CS | 0.92 | (0.59–1.44) | 0.72 |
| Postnatal complications | 0 | 1 | | |
| | 1–2 | 0.97 | (0.67–1.39) | 0.85 |
| | >3 | 2.00 | (1.12–3.58) | 0.02 |
| Prenatal care | Yes | 1 | | |
| | No | 1.17 | (0.52–2.63) | 0.70 |

ing desired the pregnancy at all' (OR:2.00, 95% CI: 1.12–3.58).

4. Discussion

The results of this analysis reveal commonalities and differences with the international literature on pregnancy intentions. Older women (35+) were found to be significantly more likely to not desire the pregnancy at all, while younger women (<35) were more likely to have desired to wait (mistimed), findings that are comparable to what has been repeatedly demonstrated in the literature. In line with well established findings [25] there was a strong association between the total number of children a woman had and pregnancy intentions, with significantly higher reports of not desiring the pregnancy at all and desiring to wait among those with a higher number of children. In contrast, significantly lower reports of having desired to wait and not having desired the pregnancy at all were found among women with high ideal number of children reports. The latter finding is of interest as it is plausible to assume that the ideal family size is revised by women as the number of their children increases, accidentally or otherwise, in a process of rationalization as has been observed for women as they grow older [26].

Family planning use 'ever' was also associated with reports of having desired to wait and not having desired the pregnancy at all. These results are expected, as those who ever used family planning must have used the methods with the intention of either planning/spacing pregnancies or stopping conception altogether. However, these results should not be interpreted as an unmet need for family planning services only, or as contraceptive failure. This is because there is credence to the argument that women's feelings about conception may not be so straightforward, and that women can have conflicting feelings about any pregnancy [27]. Furthermore, conceptualizing the problem as one of unmet need for contraception or its failure reduces a social problem to a technology and access problem of individual women able to make independent choices in isolation of the broader social environment in which they live. Indeed, it has been argued that 'declared fertility preferences are frequently at odds with observed fertility' [28] precisely because a woman is not free to make an independent choice alone, as the husband

is just as much of an actor in the arena of fertility intentions, if not more so (in the case of the OPT, the extended family and community as well), and they may well have differing preferences. This calls for the inclusion of husband preferences in future Palestinian DHS surveys.

After adjusting for other variables, there were no associations between pregnancy intentions and the receipt of prenatal care, noted in the literature as one of the behavioral correlates of pregnancy intentions, and believed to improve maternal and child health pregnancy outcomes. This finding may be a contrast to findings obtained elsewhere in both the developing and developed world, where unwanted pregnancies were associated with inadequate [29] or delayed initiation of prenatal care [30]. However, the receipt of delayed and inadequate prenatal care may also be due to health system weaknesses as opposed to a woman's behavioral attribute alone, or a mix of both factors, raising questions as to what this variable measures. Caution is also warranted when comparing the Palestinian and international results, as the Palestinian DHS question pertained to the receipt of prenatal care without additional information included that can gauge the adequacy or delay in the receipt of this service accurately. What may have also influenced these results is the very small proportion of women in our sample (3.3%) who reported not having received prenatal care during the last pregnancy.

Selected socio-economic indicators included in the Palestinians DHS surveys (such as the educational level of women and their husband, the working status of the husband and the woman, locale of residence (urban–rural–camp) and region (West Bank versus Gaza Strip) were not associated with reports of pregnancy intentions, in contrast to reports in the literature indicating that mistimed and unwanted pregnancies are significantly associated with poverty and low educational levels among women [23,24]. However, a strong interaction was found between the total number of children and all of the socio-economic variables noted above when assessing pregnancy intentions (the higher the socioeconomic status, the lower is the impact of the number of children on pregnancy intentions). No relationship was found between pregnancy intentions and mode of delivery defined bio-medically (normal, instrumental, and caesarean) or infant outcomes (birth weight and sex of child). This latter finding is

comparable to findings obtained elsewhere, where no associations were found between unwanted pregnancies and infant birth weight or even child cognitive outcomes, challenging the belief that unwanted pregnancy harms infant health and child development, and pointing to the social and environmental context where an unwanted child is born as determinant of these outcomes [31].

In this study, we have also included the pregnancy process (focusing on pre- and post-natal medical complications) as a possible determinant of pregnancy intentions, regardless of intentions at the time of conception. The hypothesis that guided our analyses entailed the notion that pregnancy intentions may change in line with the complications of the process, i.e. the difficulties or the lack of those, encountered during the pregnancy process and in the immediate post natal phase. The findings seem to support this hypothesis, as prenatal complications were significantly associated with reports of having desired to wait, while post-natal complications were significantly associated with report of not having desired the pregnancy at all. These results encourage the incorporation of questions related to process – both biomedical and psychosocial – in future pregnancy intentions research.

Although we cannot rule out bias resulting from uncontrolled confounders not available in the data set, our results seem to indicate that women's age, the total number of children they have, the ideal number of children they desire, and the use of family planning methods are important correlates of pregnancy intentions in the OPT as elsewhere, and that these may not be as sensitive to change (due to the possible instability of pregnancy intentions over time) as other correlates, perhaps reflecting women's feelings at the time of conception as well as the time of the survey. We found no other commonalities with the international literature, perhaps reiterating the problem of the complexity of the concept of pregnancy intentions, especially when attempts are made to measure those retrospectively.

5. Conclusion

From our original intention of working to understand what women want for reproductive health care, our analysis offers us fewer indications of women's needs and constraints than indications of the concep-

tual and methodological gaps contained in the DHS survey instrument currently used in the OPT, seen from a public health policy perspective. These surveys were originally initiated in the 1980s, in order to obtain worldwide demographic and family planning data, with the objective of providing policy-makers, program planners and researchers with information for policy and program development. The focus has been, and continues to be on reproduction and fertility, contraception, and child health [32]. The DHS question on pregnancy intentions may be important for demographers to forecast fertility [33]. However, from a public health research and policy point of view aiming to fulfill women's needs and assist them in realizing their pregnancy intentions, this question is not very helpful on its own. In fact, some have argued for dropping this question altogether as intendedness may be too complex of an issue to measure quantitatively accurately [34]. We argue instead for the need to develop the DHS section on pregnancy intentions by adding several related key questions (such as: did your husband desire the pregnancy; were you using contraceptives at the time; if yes, why do you think those did not work; if not, why did you not use contraceptives if you did not desire the pregnancy). Recognizing the need to be prudent, other not very useful questions contained in the DHS can be dropped, at least from the OPT version, as several sections contain questions that are no longer relevant to the country's context or its women's needs.²

These additions can shed some light on how to assist women/couples in realizing their fertility intentions as a matter of basic human right, especially if supported by qualitative methodologies that can help in explaining the quantitative results (an essential and needed improvement on DHS surveys in our opinion). Qualitative methods can assist in understanding individual Palestinian women's experiences of desiring children and the diversity of this experience. But it would be difficult to inform policy based on exclusive research on individual experiences, because as informative as

² Questions that can be dropped, as those have not proven to be useful, include: most of the household amenities questions; questions on having heard of contraceptives, given that we have known since the early 1990's that the large majority of women have heard of most of the methods; some of the disability questions, as those are very difficult to analyze; and selected questions from the child health section.

those may be, they remain relative, and appropriate policy needs to be based on equity, rights and the overall needs of the population. That is, to pass from research to action, we also need to measure characteristics and commonalities of a representative sample of the population; to find patterns in spite of the differences, which might help to understand how women's experiences of desiring children or not is affected by age, class, occupation, education etc; and how categories of women intersect with social institutions. Without this quantitative analysis it is difficult to identify disadvantaged or oppressed groups needing better services to advocate to policymakers. That is, the survey tool is necessary, but not sufficient. Quantitative research without qualitative components limits the understanding of context and the way women think, and in particular the understanding of donors and policymakers who are likely to not have firsthand experience with the reality on the ground. What is also important is how quantitative methods are applied and interpreted. Surveys can only provide us with one type of evidence that needs to be combined with other evidences to understand the full picture. The challenge in developing countries is that often, survey is the ONLY research method used (due to a multitude of obstacles to research) so that the findings become the only truth, when in fact they represent only partial, fragmentary, and insufficient evidence on which to base policy.

The other limiting feature of the Palestinian DHS is the emphasis on the biomedical aspects of women's reproductive experiences, as if medicine has appropriated women's reproductive life cycle (in this case pregnancy and the desire for children, use of family planning, childbirth, medical complications) so that the frame of reference of the DHS seems to be based on the way in which medicine works to control the reproductive experience; i.e., prenatal care, contraception, etc. In contrast, our experience with women in the OPT indicates that, many if not most women, do not think of pregnancy primarily as a medical event, but rather as a social one. Consequently, questions on pregnancy intentions present us with a confrontation between the way in which society represents and controls having children and the way in which women experience their desire for children, pregnancy, childbirth and child rearing within a particular relationship, extended family and social context. Perhaps even more so than in other countries, the socio-political and cul-

tural aspect of pregnancy and childbirth in the OPT can assume a higher importance to women than the medical aspects. Due to the political context of ongoing and intensified conflict, closures, siege and difficulty of access to maternity services for instance, Palestinian women tend to be more concerned with how and when they are going to get to the hospital than with medical concerns about the birth [35]. The mode of delivery, understood within a medical frame of reference (normal, i.e. vaginal versus caesarean section) may not be what women appreciate, as what is categorized as 'normal delivery' may not express how women experience their particular birth. Would a vaginal delivery at an Israeli army checkpoint be considered normal?

Competing interests

None declared.

What is already known on this subject

Pregnancy intention research is often focused on unmet needs for contraception, education and counseling as methods of reducing the risk of unplanned pregnancies.

What this paper adds

In addition to including behavioral, socio-economic and infant related outcome indicators in our analysis of pregnancy intentions, we also investigate the degree to which intendedness reports are associated with the process/experience women undergo during pregnancy and childbirth.

Policy implications

The paper argues for a continued modification of the DHS surveys to include a broader perspective of women's health and needs from a public health policy perspective. We also call for the inclusion of additional social measures that can identify further some of the contextual factors that influence pregnancy intentions.

Conflict of interest

None declared.

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