



The effect of receiving versus being denied an abortion on making and achieving aspirational 5-year life plans

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ABSTRACT

Background Popular support for access to abortion and contraceptive services is often based on the idea that they will help women determine the trajectory of their life course. This study examined whether receiving versus being denied an abortion affects aspirational life goal setting and attainment 5 years later.

Methods We compared women who sought and were denied an abortion because they were 3 weeks beyond the gestational limit ('Parenting-Turnaways') to those who received an abortion in the first trimester ('First-Trimesters'); received an abortion within 2 weeks of the facility's gestational limit ('Near-Limits'); and sought an abortion, were turned away and received an abortion elsewhere or placed their baby for adoption ('Non-Parenting-Turnaways'). We used mixed effects logistic regression analyses to estimate the odds of setting an aspirational plan and to estimate the odds of both setting and achieving an aspirational 5-year plan.

Results At 1 week post abortion-seeking, 791 women reported 1864 5-year plans, most of which were aspirational (n=1692, 91%). Parenting-Turnaways had lower odds of setting an aspirational 5-year plan than Near-Limits (OR 0.36, 95% CI 0.18 to 0.73). There were no differences by group in achieving aspirational 5-year plans among those who had them.

Conclusions Soon after abortion-seeking, women denied a wanted abortion were less optimistic about their long-term futures than women who received a wanted abortion. Abortion access can help women set positive long-term goals.

INTRODUCTION

Despite a significant decrease in abortion rates since the 1990s, abortion is still common in the United States, the outcome of nearly one in five pregnancies.¹

Key messages

- ▶ Women denied a wanted abortion were less aspirational in their 5-year goals compared to women who received an abortion.
- ▶ The likelihood of achieving aspirational plans was similar among women who received an abortion and those denied an abortion.

The sex equality framework for reproductive rights argues that abortion access can help assure equality between men and women.^{2,3} This framework acknowledges the social aspects of reproduction, for instance, that norms about childrearing are different for women than they are for men and that "those who engage in caregiving are often prevented from acquiring education and market experience that are economically valued as caregiving is not".³

According to this framework, restricting women's access to a wanted abortion may affect their access to life opportunities, especially related to financial stability and civic engagement.^{2,3}

Few studies have examined the relationship between attaining self-defined life plans and access to abortion care. A previous analysis of data used in the present study examined 1-year plan setting and attainment among women who either received a wanted abortion or were turned away because they were beyond the facility's gestational limit.⁴ In that analysis, women who were denied a wanted abortion and subsequently parented had lower odds of having and achieving an aspirational 1-year plan than women who received a wanted abortion. The present study builds on this

previous work by examining whether the observed differences in 1-year aspirational goal setting and attainment are also present in women's longer term, 5-year goals. The purpose of this analysis was to examine whether aspirational goal setting at baseline and achievement over 5 years' time differed between women who either received or were denied a wanted abortion.

METHODS

The Turnaway Study recruited women presenting for abortion from 30 abortion facilities in 21 states between 2008 and 2010. Recruitment sites were facilities with the latest gestational limit within 150 miles. Sites' gestational limits ranged from 10 weeks to the end of the second trimester. They were identified by referral and through the National Abortion Federation. Women were eligible to participate in this study if they presented for an abortion at a participating clinic, spoke English or Spanish, were age 15 years or older, and did not have known fetal anomalies.

Women were recruited into three groups on a 1:2:1 ratio: 'Turnaways' were women denied abortions because they presented up to 3 weeks beyond the facility's gestational limit; 'Near-Limits' were abortion patients who presented up to 2 weeks before the facility's gestational limit and received an abortion; and 'First-Trimesters' were abortion patients who presented in their first trimester and received an abortion. To identify the effect of carrying an unwanted pregnancy to term, we examine Turnaways who carried the pregnancy to term and were raising the child, 'Parenting-Turnaways' separately from Turnaways who subsequently had an abortion elsewhere, miscarried, or placed the child for adoption, 'Non-Parenting-Turnaways'. Following the baseline survey 1 week after either receiving or being denied an abortion, participants were interviewed by telephone semiannually for 5 years. All participants provided informed consent and the study was approved by the Institutional Review Board at the University of California San Francisco. Additional methodological details can be found elsewhere.⁵⁻⁸

Measures

Surveys included questions about participants' demographic and socioeconomic characteristics, household composition, employment and educational endeavours, reproductive history, social support, relationships, children, and life satisfaction. At the end of the first survey, 8 days after seeking an abortion, participants were also asked the open-ended question, 'How do you think your life will be different in 5 years from now?'. This question was used to assess aspirational goal setting at baseline.

Each 5-year plan was characterised according to outlook and by topic. A second author evaluated the consistency of coding with the previous analysis. Outlooks were coded as aspirational, negative, or neutral and topics included education, employment,

finances, child-related, emotions, living situation, relationship status, and other.⁴ We identified whether achievement of the plans could be ascertained given data from follow-up surveys and evaluated whether women achieved each of their plans based on responses to other questions in surveys over the next 5 years. The primary author wrote code for each unique goal that drew from the data collected at subsequent follow-up surveys to determine whether it was achieved.

Data analysis

We used mixed effects logistic regression and multinomial logistic regression analyses to assess whether baseline characteristics differed by study groups. We then evaluated aspirational goal setting at baseline. We used mixed effects logistic regression to assess whether receiving versus being denied an abortion was associated with setting aspirational versus negative or neutral plans at baseline among all women in the sample.

Using mixed effects logistic regression models we evaluated whether goal achievement was associated with either receiving versus being denied an abortion among women who set aspirational 5-year plans at baseline and who continued the study through Year 5. Second, we evaluated whether both setting an aspirational 5-year plan and achieving it was associated with receiving or being denied a wanted abortion among women who continued the study through year 5.

Finally, we evaluated goal setting and goal achievement by type of goal (child-related, employment, educational, relationship status, living situation/residence, emotional, financial, or other) and whether the types of plans women varied across study groups using mixed effects logistic regression. We also assessed whether goal achievement varied by goal types among women who continued in the study through year 5 using separate mixed effects logistic regression models.

The Near-Limit group was the reference group for all analyses. Multivariable models adjusted for baseline age, race, education, employment, poverty status, union status, parity, and history of depression/anxiety. Given that many women reported multiple 5-year plans, the unit of analysis was the plan. Mixed-effects models adjusted for clustering by participant and facilities. We present predicted probabilities from adjusted models. All analyses were conducted in Stata 14.0.⁹

RESULTS

Over one-third (38%) of women eligible to participate in this study consented to participate in semiannual telephone interviews over 5 years. A total of 956 women completed the baseline interview, 8 days (on average) after either receiving or being denied an abortion. One site was excluded from analysis because 95% of the women turned away received an abortion elsewhere (n=76); additionally, women were excluded if they initially agreed to participate but subsequently decided not to have an abortion (n=4), if they spontaneously

Table 1 Baseline characteristics of sample and distribution by study group (N=791)

Characteristic	Near-Limit Abortion group (n=371) (ref.) (%)	Parenting-Turnaways (n=144) (%)	First-Trimesters (n=235) (%)	Non-Parenting-Turnaways (n=41) (%)	Total (n=791) (%)
Age category (years)					
15–19 (ref.)	17.5	29.8	14.9	23.9	19.4
20–24	38.5	35.4*	28.5	41.3	35.2
25–34	36.1	31.3*	47.7	28.3*	38.2
35–46	7.8	3.5*	8.9	6.5	7.3
Race					
Non-Hispanic white (ref.)	33.6	26.2	38.9	37.0	34.1
Non-Hispanic black	31.2	34.0	31.6	30.4	31.8
Latina	21.0	25.5	20.5	13.0	21.2
Multiracial/other	14.2	14.2	9.0*	19.6	13.0
Educational attainment					
Less than high school (ref.)	16.4	21.5	15.7	22.0	17.5
High school, GED, or some college	77.1	72.9	72.8	70.7	74.7
College degree	6.5	5.6	11.5	7.3	7.8
Marital status					
Not married (ref.)	93.0	91.7	88.5	95.7	91.6
Married	7.0	8.3	11.5	4.4	8.4
Employment					
Not in school or employed (ref.)	24.8	33.3	15.8	21.7	23.4
In school, employed, or homemaker	75.2	66.7	84.2*	78.3	76.5
Children (n)					
0	29.7	44.8**	37.2*	36.5	35.1
1	33.6	23.2*	25.6	34.2	29.4
2+ (ref.)	36.7	32.0	37.2	29.3	35.6
History of child sexual abuse or neglect					
No (ref.)	74.4	72.2	73.2	86.9	74.4
Yes	25.6	27.8	26.8	13.0	25.6
History of diagnosed anxiety or depression					
No (ref.)	75.7	77.8	70.6	71.7	74.4
Yes	24.3	22.2	29.4	28.3	25.6
Gestational age at baseline (weeks)					
3–13 (ref.)	14.8	0.7	99.6	2.4	36.8
14–19	20.2	15.3*	0.4***	58.5***	15.4
20+	65.0	84.0**	0.0***	39.0	47.8

*p<0.05, ** p<0.01, *** p<0.001 compared with the Near-Limit abortion group. GED, General Educational Development; ref., reference group.

miscarried (n=5), or if they did not answer the question about 5-year plans (n=80). The final sample of 791 women consisted of 47% (n=371) Near-Limits, 18% (n=144) Parenting-Turnaways, 30% (n=235) First-Trimesters and 5% (n=41) Non-Parenting-Turnaways. Attrition between baseline and 5 years' follow-up was 42%, which did not differ across study groups.

Sample characteristics are described in [table 1](#). Overall, the study groups were similar; however, women who were in the Near-Limit Abortion group tended to be older and of higher parity than Parenting-Turnaways.

Five-year plans

The women in this study described 1864 5-year plans. Most 5-year plans were aspirational, defined as having a positive outlook (n=1692, 91% of all plans). Thirty-five women reported that they did not have 5-year plans and/or could not think that far ahead. Only 26 plans (1% of plans) were negative and 146 (8% of plans) were neutral. An example of an aspirational plan was “*Hopefully I will have graduated and have my nursing degree*”. Examples of a neutral and negative plan, respectively, were “*I don't see it being that different*” and “*I will have to sacrifice a*

Table 2 Plans' themes, frequency counts, and examples, by outlook

Outlook	Theme	Plan frequency (n)	Examples
Aspirational (n=1692)	Child-related	274	"Hopefully by then I'll have a baby"; "Taking care of my child"
	Employment	298	"I hope I'm in the work force"; "Hopefully I will have a career"; "I'll have a job with benefits"
	Educational	255	"Hopefully still in college"; "I'll have an education"; "I will have graduated from school"
	Relationship status	211	"Hopefully I'll be married by then"; "...and possibly be in a relationship"; "Hopefully I am settled down and married"; "Be married, have a good husband"
	Living situation/residence	188	"Hopefully I still have my apartment"; "I would be owning my own house"; "I think I'll be living on my own instead of living with family"; "Living with my boyfriend in a house or apartment"
	Emotional	186	"I hope it will be great"; "[I] wouldn't be worried as much as I am"; "Living life happy"; "I just hope that it gets better"; "Hopefully it is going in a good direction and I'm in a good place and happy"
	Other	163	"I hope to get a dog"; "Maintaining my sobriety"; "I just keep doing things to improve our situation"
	Financial	117	"I should be financially stable"; "...and providing better for my children"; "...and not living paycheck to paycheck"
Neutral (n=146)	Child-related	48	"My future is dedicated to my kids and their education"
	Educational	4	"Not attending school"
	Relationship status	4	"Maybe I'll be married, maybe I won't be"
	Living situation/residence	17	"I'll probably be living in another city"; "Probably won't be in Oregon anymore"
	Emotional	4	"I will be okay"
	Employment	2	"No longer working for [business name]"
	Financial	1	"Trying to make it through"
	Other	66	"I don't see it being that different"; "I am not thinking that far ahead"
Negative (n=26)	Child-related	9	"Same deal, [the child] will be with me for the rest of my life"
	Emotional	7	"Probably stressful"
	Financial	5	"The bills will probably get more expensive as the kids get older"; "Broke"
	Other	5	"I'm just trying to make it through today"

lot of things: friendships, relationships, jobs, for my kid. It will be sacrificing a lot".

The follow-up surveys captured information which enabled us to determine whether most positive plans were achieved (n=1435, 77% of all plans; 85% of positive plans). There were 51 plans which were too vague to be measured and 257 plans which were not measurable because we did not collect relevant variables in this study. An example of a vague plan was to be "living a normal American life". A common

unmeasurable plan was a desire to feel more stable in 5 years; however, we did not collect information about respondents' sense of life stability. Table 2 contains examples of aspirational, neutral, and negative plans for each topic. Table 3 describes 5-year plan setting and achievement by study group in unadjusted models.

Setting aspirational 5-year plans

The predicted probability of setting an aspirational 5-year plan at baseline was 0.83 for Parenting-Turnaways, 0.91

Table 3 Description of 5-year plan setting and achievement by study group (N=791)

	Near-Limit Abortion group (n=371, ref.)	Parenting-Turnaways (n=144)	First-Trimesters (n=235)	Non-Parenting-Turnaways (n=41)	Total (n=791)	P value
Mean number of 5-year plans at baseline per woman (n)	2.3	2.2	2.5	2.6	2.4	0.119
Mean number of aspirational 5-year plans at baseline per woman (n)	2.1	1.9	2.3	2.3	2.1	0.076
Percentage of women's plans at baseline which were aspirational (%)	91	92	87	89	91	0.086
Percentage of aspirational 5-year plans at baseline which were measurable (%)	85	85	84	91	85	0.460
Percentage of measurable aspirational plans that were achieved (%)	53	57	53	67	54	0.188

Table 4 Adjusted odds of setting, achieving, and both setting and achieving measurable aspirational 5-year plans

	Estimated odds of setting an aspirational 5-year plan at baseline	Estimated odds of achieving a measurable, aspirational 5-year plan among women not lost to follow-up	Estimated odds of both setting and achieving a measurable, aspirational 5-year plan among women not lost to follow-up
	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)
Study group			
Near-Limit Abortion group	ref.	ref.	ref.
Parenting-Turnaways	0.36 (0.18 to 0.73)*	1.42 (0.88 to 2.30)	1.15 (0.74 to 1.78)
First-Trimesters	1.37 (0.73 to 2.60)	1.06 (0.74 to 1.50)	0.98 (0.70 to 1.35)
Non-Parenting-Turnaways	0.42 (0.13 to 1.29)	1.87 (0.90 to 3.89)	1.37 (0.73 to 2.59)
Age category (years)			
15–19	ref.	ref.	ref.
20–24	0.59 (0.24 to 1.48)	0.78 (0.49 to 1.22)	0.66 (0.43 to 1.00)
25–34	0.37 (0.14 to 1.00)	0.61 (0.36 to 1.04)	0.54 (0.33 to 0.89)*
35–46	0.42 (0.11 to 1.61)	0.86 (0.39 to 1.91)	0.80 (0.39 to 1.65)
Race			
Non-Hispanic white	ref.	ref.	ref.
Non-Hispanic black	1.32 (0.64 to 2.69)	0.96 (0.64 to 1.44)	0.99 (0.68 to 1.44)
Latina	1.16 (0.53 to 2.54)	1.02 (0.65 to 1.58)	1.03 (0.69 to 1.54)
Multiracial/other	0.85 (0.38 to 1.90)	1.57 (0.93 to 2.64)	1.44 (0.90 to 2.30)
Educational attainment			
Less than high school	0.53 (0.26 to 1.07)	0.80 (0.49 to 1.31)	0.68 (0.43 to 1.07)
High school, GED, or some college	ref.	ref.	ref.
College degree	0.57 (0.22 to 1.50)	1.36 (0.72 to 2.58)	1.20 (0.67 to 2.13)
Marital status			
Not married	ref.	ref.	ref.
Married	0.39 (0.18 to 0.89)*	1.66 (0.91 to 3.03)	1.06 (0.64 to 1.76)
Employment			
Not in school or employed	ref.	ref.	ref.
In school, employed, or homemaker	1.24 (0.67 to 2.29)	1.37 (0.92 to 2.03)	1.23 (0.86 to 1.78)
Previous children (n)			
0	ref.	ref.	ref.
1	1.22 (0.59 to 2.54)	0.79 (0.54 to 1.16)	0.76 (0.57 to 1.17)
2+	0.39 (0.18 to 0.81)*	1.31 (0.8 to 2.10)	1.03 (0.68 to 1.58)
History of child physical or sexual abuse or neglect			
No	ref.	ref.	ref.
Yes	1.41 (0.75 to 2.67)	0.75 (0.52 to 1.16)	0.85 (0.60 to 1.20)
History of diagnosed anxiety or depression			
No	ref.	ref.	ref.
Yes	1.04 (0.57 to 1.92)	1.06 (0.73 to 1.55)	0.98 (0.70 to 1.39)

Plans were measurable if we collected data to determine if the plan was achieved (85% of aspirational plans).

* $p < 0.05$.

aOR, adjusted odds ratio; GED, General Educational Development; ref., reference group.

for Near-Limits, 0.93 for First-Trimesters and 0.84 for Non-Parenting-Turnaways. In multivariable analysis, Parenting-Turnaways had lower odds of setting an aspirational 5-year plan at baseline compared with Near-Limits (OR 0.36, 95% CI 0.18 to 0.73). Results from the multivariable analyses are described in [table 4](#).

Achieving aspirational 5-year plans

Most plans (91%) were aspirational and just over half of aspirational plans (54%) were achieved. Results of a

multivariate logistic regression model found no differences in achieving aspirational plans by study group. There were no differences between study groups in both setting and achieving aspirational 5-year plans in a separate multivariate logistic regression model.

Types of plans

Plans related to the following themes: child-related (n=274, 16% of all aspirational plans); employment

(n=298, 18%); education (n=255, 15%); relationship status (n=211, 12%); living situation/residence (n=188, 11%); emotions (n=186, 11%); finances (n=116, 7%); and other goals (n=161, 10%). There was no association between study group and type of plans women set at baseline, nor was there an association between goal achievement and study group within specific types of goals.

DISCUSSION

This study evaluated long-term goal setting and achievement among women who received or were denied an abortion. We found that over 90% of plans were aspirational, which suggests that when women experience an unwanted pregnancy, most remain optimistic about their long-term futures.

Women denied a wanted abortion were less likely to set an aspirational 5-year plan than women who received an abortion (83% vs 91%). This is consistent with prior analyses of women's 1-year plans which found that Turnaways were less likely to set aspirational 1-year plans than women who had an abortion (56% vs 86%).⁴ These findings suggest that women denied an abortion may sharply adjust their short-term plans and even adjust their long-term plans to accommodate the added responsibility of raising a child.

We also found that women set 5-year aspirational plans across a wide variety of domains, most often related to employment, finances, relationship status, living situation, and emotions. These themes are similar to the reasons women report seeking an abortion.^{10 11} There was a small change in the composition of 1-year and 5-year plans: 1-year plans were more likely to be education-related while 5-year plans were more likely to be child-related.⁴

In this study, almost one-fifth of aspirational 5-year plans were related to employment. Previous analyses of Turnaways group data found that although women who carried their unwanted pregnancy to term had three times higher odds of not working at 6 months' follow-up relative to the Near-Limit group, the Turnaways group increased their full-time employment over time and were similar to the Near-Limit group by 4 years.¹² Policies and interventions aimed at helping women with young children to achieve stable employment and financial stability may reduce the time it takes for women to achieve their employment goals.

Turnaways have a realistic view of what they could accomplish over 5 years' time; they did not differ from other groups in terms of achieving their 5-year plans. This analysis could not assess the extent to which women who were turned away from abortion attenuated their plans from before to after they discovered they would be carrying their pregnancy to term, as the baseline survey took place on average 8 days after either receiving or being denied an abortion. Given their similarities to the Near-Limit group, it seems likely that women who were turned away from receiving an abortion reduced their

aspirations for the next 5 years in expectation of carrying an unwanted pregnancy to term.

Our study was only able to code plans as aspirational versus negative or neutral. We could not gauge exactly how aspirational the plan was, for example, hoping for financial stability versus hoping for a new career and promotion. Both of these would be treated as aspirational plans, but they differ in the degree of ambition. We see in the analysis of educational outcomes in the Turnaway Study that graduation rates did not differ by whether women received or were denied an abortion but those who were denied completed lower-level degrees (eg, high school vs community college or 4-year college degrees).¹³ Women who were turned away may have achieved their aspirational plans at a similar rate as women who received an abortion and yet have achieved a less ambitious goal. For a more robust understanding of whether abortion access can help women attain the plans they set, future research should investigate how and why women change their long-term plans after learning they will carry an unwanted pregnancy to term and attempt to assess how aspirational specific plans are.

A strength of this study was that we asked women at baseline an open-ended question about what they envisioned their lives would be like in 5 years' time so that women could define their own life plans, rather than be held to a predetermined goal. In addition, we collected a wide range of information, especially related to physical and mental health, income, union status, housing arrangements, caregiving, as well as employment and educational endeavours, which made it possible to evaluate whether women achieved many of these plans.

Another advantage of this study was its use of an appropriate comparison group. This study compared women who were turned away from abortion to women who received one. This design prevented bias from confounding factors related to choosing birth rather than abortion or avoiding pregnancy altogether.

A limitation of the current study was that many women who were invited to participate declined, although the recruitment rate was similar to that of other longitudinal studies with a 5-year follow-up period.¹⁴ Some 42% of the respondents were lost to follow-up at 5 years, although those lost to follow-up did not systematically differ in terms of sociodemographic characteristics or aspirational plan-setting from those who were not. Nonetheless, we cannot completely rule out the possibility that women who were lost to follow-up may have differed in whether they achieved their 5-year plans.

This study contributes to the literature by documenting that women who were turned away from a wanted abortion were less optimistic about their long-term futures than women who received them. This evidence provides support for the notion that abortion helps women make positive life plans, which is important for both personal achievement and participation in civil society.

We also find that women are resilient. The previous analysis of 1-year plans found that women who are denied a wanted abortion are less likely to achieve an aspirational plan within 1 year. By 5 years, women have a roughly equal likelihood of achieving an aspirational 5-year plan regardless of whether they received or were denied an abortion.

Ensuring access to abortion may help women remain optimistic about their short- and long-term futures. For instance, gestational limits on abortion, limits on the use of medication abortion, requirements for multiple clinic visits, waiting periods, and other overlapping restrictions on abortion care limit access to obtaining abortion services. Removing such policy barriers and ensuring access to abortion services may not only help women achieve their reproductive goals, but also help women set aspirational goals about their short- and long-term futures. Such policies would align with the sex equality framework^{2,3} by improving women's lives and respecting women's autonomy and agency.

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Contributors DGF conceptualised, designed and supervised this study. MAM, UU and DGF conducted statistical analyses, with support from LR and MAB. MAM drafted the manuscript. All the authors revised the manuscript critically for important intellectual content, and all the authors approved the final version and agree to be accountable for all aspects of the work.

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