THE ABORTION SELF-EFFICACY SCALE

'Self-efficacy' refers to an individual's confidence in their ability to carry out a behavior or task to produce a desired outcome. Self-efficacy theory is utilized to understand and address a range of health-related behaviors, including reproductive health ones, and topic-specific self-efficacy measurement tools have been developed and validated for issues ranging from breastfeeding to contraceptive use. However, there has been limited scientific inquiry into the relationship between self-efficacy and abortion, perhaps in part due to the lack of an available measurement tool.

> "Ipas defines abortion self-efficacy as an individual's confidence in their ability to perform tasks or behaviors related to safely ending a pregnancy.

The Abortion Self-Efficacy Scale (ASES) is a 15-item tool designed to measure abortion self-efficacy at the individual and community level. The tool can be used as part of formative research to inform the design, content and messaging of interventions intended to increase abortion self-efficacy. It can also be used to measure changes in abortion self-efficacy over time. Additionally, ASES scores can be utilized to understand factors associated with abortion self-efficacy. ASES is available on www.ipas.org/resources in English, French, Portuguese and Spanish. It is also available in Nepali and four Nigerian languages upon request.

Developing and validating the scale

The development and validation of ASES was conducted in three phases. In Phase 1, in-depth interviews (IDIs) and focus group discussions (FGDs) were conducted in Bolivia, Nepal and Nigeria. The IDIs and FGDs focused on what women need to feel confident in their ability to access a safe abortion. Using data from IDIs (n=130) and FGDs (n=52), self-efficacy-related themes were identified, and potential scale items were generated and refined. Cognitive interviews were then conducted with five women in each country and items were revised as necessary prior to finalizing a set of 31 items. Qualitative analyses were conducted with Atlas.ti.

In Phase 2, a survey was administered to a quota sample of approximately 400 women (age 15-49) in each country. The survey included 31 self-efficacy items, five abortion knowledge items, five abortion experience items, and one social environment item. Exploratory factor analysis (EFA) was conducted to identify an appropriate scale structure. Due to similarities among the 31 fielded self-efficacy items, EFA was limited to 21 items. Items with factor loadings >0.45 were retained. Items that loaded on more than one factor were eliminated from the model, as were items that had a uniqueness score

of >0.60. EFA resulted in a 15 item, 3-factor model with an excellent reliability coefficient (α >0.90). The three factors represent the concepts of enlisting social resources, accessing information and care, and resilience. The *enlisting social resources factor* contains six items related to a person's confidence in asking for various types of support, including informational, emotional and financial. The *accessing information and care factor* contains six items related to a person's confidence in getting safe and accurate abortion information and care. And the *resilience factor* contains three items related to a person's confidence in their ability to be resilient in the face of abortion stigma.

In Phase 3, the scale items were administered to a new sample of approximately 400 women (age 15-49) in each country. Confirmatory factor analyses (CFA) were conducted to test model fit for the scale structure identified during Phase 2. Reliability of the scale was tested using Cronbach's alpha, with a coefficient >0.80 considered acceptable. Construct validity—the extent to which the new scale is associated with variables known to be related to self-efficacy—was tested by examining the relationship between ASES and the following variables: personal abortion experience, knowing someone who has had an abortion, knowledge of safe abortion, and hearing positive messages about abortion in their community. Concurrent validity—the extent to which the scale is associated with another measure of self-efficacy—was tested by examining the correlation between ASES scores and responses to a single item: "If you wanted or needed an abortion, you could get one." CFA results indicate a strong model fit on the independent sample, with key goodness-of-fit statistics well within the acceptable range—specifically, root mean square error of approximation <0.06, standardized root mean square residuals <0.05, and comparative fit index >0.90. The reliability coefficients for the three subscales and the full 15-item instrument provide evidence of internal consistency (0.91, 0.89, 0.90 and 0.94, respectively). ASES scores were statistically significantly higher (p<0.05) for women who: reported having had an abortion, reported knowing other women who have had an abortion, had knowledge about where to get a safe abortion, or were living in an area where they heard or saw positive messages about abortion, all providing evidence of construct validity. A statistically significant correlation of .51 (p<0.05) was found between ASES scores and the degree to which women agreed that they could get an abortion if they wanted or needed one, providing evidence of concurrent validity. Quantitative analyses were conducted with StataSE 14 & 16.

The EFA and CFA results reveal a valid, reliable scale that can be used in various countries and settings to understand and measure abortion self-efficacy. Ipas will continue to test the validity of ASES in additional countries and will share results widely. We encourage researchers and program evaluation professionals to conduct CFA on ASES data when the scale is being used in countries where its validity has not been established.

ASES scoring

ASES respondents rank their confidence for each item on a scale of 0-10, with 0 representing no confidence and 10 representing complete confidence. Researchers and program evaluation professionals can use the total summed score (range: 0-150), the subscale summed scores (ranges: 0-60, 0-60 and 0-30, respectively), or can calculate the summed score average for the total scale or subscales (score range: 0-10). A higher score, summed or average, represents greater levels of abortion self-efficacy. For ease of interpretation and documenting changes in abortion self-efficacy over time, summed score averages can be categorized into four groups: 1) no confidence (0-1), 2) low confidence (2-4), 3) moderate confidence (5-7), and 4) high confidence (8-10). Results will need to be contextualized within the setting where the data was collected.

ASES items, by sub-scale

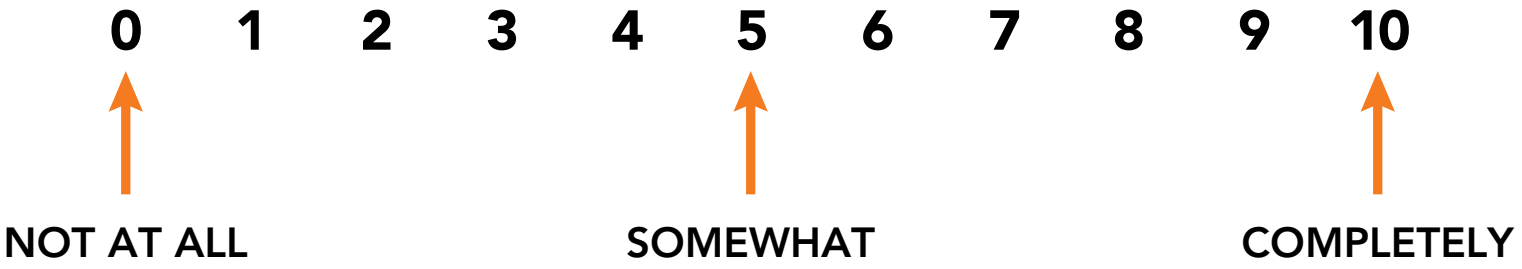
ASES comprises 15 items, with each item contributing to a sub-scale score, as indicated below. Respondents are asked to put themselves in a hypothetical situation in which they want or need an abortion, and are then asked to rank how confident they are, on a scale of 0-10, in their ability to carry out the task detailed in each item. A visual aid, like the one included at the end of this document, can be used to assist respondents in ranking their confidence for each item.

ABORTION SELF-EFFICACY SCALE	
Prompt: People sometimes make the decision to have an abortion when they have a pregnancy that is unplanned, unwanted or mistimed. Imagine that you needed or wanted to have an abortion. On a scale of 0-10, with 0 being not at all confident and 10 being completely confident, how confident do you feel in your ability to do each of the following tasks... **Fielding tip:** For the first item, be sure to say, "How confident do you feel in your ability to…" and then repeat the prompt every few items.	
ENLISTING SOCIAL RESOURCES	
1	Talk with someone close to you about having an abortion?
2	Ask someone you trust for information on safe abortion?
3	Ask for advice from someone you know who has had a safe abortion?
4	Ask someone to help you pay for the cost of a safe abortion?
5	Ask someone close to you to accompany you during an abortion?
6	Talk to someone close to you who will support you after an abortion?
ACCESSING INFORMATION AND CARE	
7	Get the information you need about safe abortion services or methods?
8	Get a safe abortion even if people close to you do not support your decision?
9	Find someone to provide you with a safe abortion?
10	Get a safe abortion without other people finding out?
11	Get a safe abortion from someone who will not take advantage of you?
12	Pay for the cost of a safe abortion?
RESILIENCE	
13	Deal with people gossiping about you if they find out about your abortion?
14	Deal with any judgement from other people?
15	Stand up for yourself if people find out about your abortion and treat you poorly?

For questions or more information about ASES, please contact Kristen Shellenberg, Senior Research Scientist, North Carolina, USA, shellenbergk@ipas.org.

CONFIDENCE SCALE

(How confident or sure do you feel?)



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