



Impacts of the Gender and Entrepreneurship Together Ahead (GET Ahead) training on empowerment of female microfinance borrowers in Northern Vietnam



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ARTICLE INFO

Article history:

Accepted 1 April 2019

Keywords:

Women empowerment
GET Ahead training
Randomized controlled trial
Vietnam
Asia

ABSTRACT

Across the world the Gender and Entrepreneurship Together (GET Ahead) training originally developed by the International Labour Organization has been implemented to improve business outcomes and enhance women's empowerment. This randomized controlled trial is the first rigorous attempt to examine the impact of the GET Ahead training on women's empowerment. We focus on the impact of offering this training to female microfinance borrowers of TYM, the largest microfinance organization in North Vietnam. A major contribution of this study is that it focuses on different dimensions of women's empowerment: (1) personal empowerment, measured by control beliefs, and (2) relational empowerment, measured by relational friction and intra-household decision making power. This study also stands out in that we explicitly study whether involving husbands affects the impact of the training. We find that the GET Ahead training improves women's empowerment on all three aspects: increased control beliefs and intra-household decision making power (only on larger expenditures), and decreased relational friction. However, the results on relational frictions should be taken with care due to possible underreporting. Moreover, in general, we find no additional impacts of inviting husbands to the training. Finally, our results suggest that it takes some time before the training starts to improve women's empowerment. We observe no short-term but only mid-term effects from before the training to 12 months after the training.

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1. Introduction

Throughout human history, as societies grew and expanded, men maintained positions of supremacy (Brown, 1991). Today women worldwide still face disadvantages in several domains, including education, employment, political representation, and intra-household oppression due to social norms that encourage such status differences (e.g., Armendáriz & Morduch, 2010). Gender inequity is especially prevalent in nations with lower incomes (Sanyal, 2009). This is also supported by statistics of the Gender Inequality Index which indicates the extent to which national achievements are eroded by gender inequity [United Nations Development Program (UNDP), 2014]. The persistence of gender inequity appears to hinder the advancement of sustainable devel-

opment. Conversely, enhancing gender equity could encourage economic development. This assumption is supported by scholars who stress the importance of women's empowerment for economic development (e.g., Duflo, 2012) and provide evidence that the sustained growth in economic development observed in modern societies can be attributed in part to improvements in gender equity (Diebolt & Perrin, 2013). Even the former Secretary General of the United Nations Kofi Annan has argued that gender equity is a prerequisite to achieving other development goals (UNDP, 2005). Whether encouraging women's empowerment directly results in durable economic development remains an open question, but the two concepts clearly are interrelated. It seems plausible that empowering women could change existing decision-making patterns and thereby impact development (e.g., Duflo, 2012). Different programs have been developed and implemented around the world to improve the position of women in society such as strengthening women's political participation or decreasing violence against women (for examples see UNDP, 2017). Another

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prominent approach is to offer microfinance services to women (for a recent debate see Garikipati, Guérin, Johnson, & Szafarz, 2017).

The current research reports results of a randomized control trial examining the impacts of the Gender and Entrepreneurship Together – GET Ahead for women in Enterprise – training offered to a large group of female microfinance borrowers in Vietnam, where microfinance is widespread (Asian Development Bank [ADB], 2014). The study's main contributions are threefold. First, we examined the short- and medium-term impacts of the GET Ahead training on different aspects of women's empowerment. The program's aim was to help women to develop their entrepreneurial skills and receive social support through groups, networks, and institutions to promote women's empowerment.

The current training was a culturally adapted and shortened version of the GET-Ahead for women in enterprise training developed by the International Labour Organisation (ILO; Bauer et al., 2004), which has been implemented in more than 18 countries around the world. This training differs from conventional business training by highlighting essential entrepreneurial skills from a gendered perspective (Bauer et al., 2004).¹ Whereas many NGO's offer combined gender and business programs, to the best of our knowledge previous research has only focussed on examining the effects of business training on economic outcomes (e.g., McKenzie & Woodruff, 2014). To the best of our knowledge, this study is the first to investigate the impact of the GET Ahead training on various aspects of women's empowerment.²

Second, previous research in the field of microfinance services has mainly focused on women's intra-household decision making power as the main indicator of women's empowerment (for an overview see Duvendack, Palmer-Jones, & Vaessen, 2014). In this paper we extend this research by studying women's empowerment more broadly by assessing *personal empowerment* with control beliefs and *relational empowerment* with relational friction as well as intra-household decision making power (Huis, Hansen, Otten, & Lensink, 2017).

Third, though microfinance services are available to both men and women, most borrowers are women (Kaur, 2014). Supporters argue that offering access to microfinance services to women is a promising means to empower women and increase gender equity (e.g., Armendáriz & Morduch, 2010; Kulkarni, 2011). However, some research also provides evidence for negative effects for female borrowers. More precisely, qualitative research suggested that female microfinance borrowers experienced more intimate partner violence (Rahman, 1999). Other research showed that men felt excluded from these programs because they were mainly offered to women (Rahman, Hoque, & Makinoda, 2011). To avoid this potential source of friction (i.e., exclusion of men), we randomly selected a group of female microfinance borrowers whose husbands were also invited to participate in the training sessions. In sum, we compared female borrowers who were not invited with those, who were invited to the GET Ahead training alone, and those invited together with their husbands.

Overall, the results indicated that offering the GET Ahead training to female microfinance borrowers increased women's empowerment on three aspects: (1) more *personal* empowerment as indicated by control beliefs and more *relational* empowerment as

indicated by (2) less relational friction and (3) more intra-household decision making power. In general, no differential impact of inviting the husbands of female microfinance borrowers to the training compared to inviting female microfinance borrowers alone was observed. All impacts increased over time from before the training to 12 months after women participated in training.

The next section contains a short overview of the theoretical background and relevant literature. We then describe the study context in Section 3 and the methods in Section 4, including balancing tests, attrition analyses, and uptake. Section 5 contains the estimations, and Section 6 presents the results, and possible mechanisms linking access to training to women's empowerment. In Section 7 we review the relevant findings, and discuss the implications and limitations of the current research and suggestions for future research.

2. Theoretical background

2.1. Gender relations and women's empowerment

Societies are organized as group-based social hierarchies in which men on average hold more power than women (Sidanius & Pratto, 1999). According to the social dominance theory (Sidanius & Pratto, 1999) the relatively stable inequity between men and women is a consequence of persistent unequal access to resources. Expanding on this idea, the gendered power model (Pratto & Walker, 2004; Pratto, Lee, Tan, & Pitpitan, 2008) suggests that gender inequity has four bases: strength (e.g., physical and emotional power), access to resources (e.g., control over financial resources), social obligations (e.g., distribution of household responsibilities), and gender ideology (e.g., culturally shared beliefs that legitimize power asymmetries). Men compared to women hold more power on all four bases. The model assumes dynamic relations between these four bases.

Whether women gain more power in the different bases of power is related to the concept of empowerment. Women's empowerment is defined as women's ability to make strategic life choices in settings in which this ability was previously denied them (Kabeer, 1999). Empowerment is thus a process of change that enables women with limited choice, freedom, and power to gain and leverage power, which enhances their ability to exercise choice and freedom in ways that enhances their well-being (e.g., Ganle, Afriyie, & Segbefia, 2015; Kabeer, 1999). Accordingly, women's empowerment results from both a change away from a condition of disempowerment, and towards a sense of personal agency or choice (Malhotra, Schuler, & Boender, 2002).

Comparing different literatures, women's empowerment has been studied as a multifaceted concept which includes a variety of aspects such as access to resources, psychological feelings of efficacy, decision making power (e.g., Ali & Hatta, 2012; Klein, 2014), freedom of movement and gender beliefs (Arestoff & Djemai, 2016), feelings of agency and social networks (Hansen, 2015), bargaining power (e.g., Mishra & Abdoul, 2016), and women's labor force participation (e.g., de Jong, Smits, & Longwe, 2017). These different aspects can be categorized in three different dimensions of women's empowerment, namely personal, relational, and societal empowerment (for a review see Huis et al., 2017). *Personal empowerment* encompasses aspects of empowerment related to the individual self, such as self-efficacy, control beliefs, or feelings of personal agency. *Relational empowerment* is indicated by women's level of empowerment with respect to their relationships such as in their marriage, household, or family, and includes aspects such as bargaining power as well as aspects of relationship quality (e.g., freedom of movement, intimate partner violence). *Societal*

¹ The reported results are part of a larger research project which tested the impacts of the same GET Ahead training in Vietnam. Bulte et al. (2017) studied the impact of the training on business outcomes, Bulte et al. (2016) provide a preliminary analysis of its impact on women's intra-household decision making power in a behavioral game among a small subsample, and Bulte and Lensink (2019) focus on the impact on physical assault using the item count technique.

² Important to note, in this paper we focus specifically on the impact of training offered to female microfinance borrowers on women's empowerment and do not examine the impact of offering microfinance credit.

empowerment, finally, refers to women's position in society on a macro level and is indicated by aspects such as women's labor force participation or the number of women leading a business. In the current paper we focussed on the personal and relational level as we studied an intervention at the micro level and involved husbands as well. We assessed personal empowerment with control beliefs and relational empowerment in terms of relational friction as well as intra-household decision making power about expenditures in the daily domain and larger expenditures.

Our study focusses on the impact of a training offered to microcredit borrowers on women's empowerment, and thus does not deal with the women empowerment effects of microcredit. Yet it is relevant to briefly discuss the literature on microcredit and women empowerment. Proponents of microfinance services assume that offering women access to these services (i.e., microcredit, savings) should increase women's empowerment (Armendáriz & Morduch, 2010; Duvendack et al., 2014). While there is abundant research on the impact of offering microcredit on business outcomes, the relation between offering access to microfinance services and empowerment remains unclear (e.g., Kabeer, 2001; Weber & Ahmad, 2014). For example, on the personal level of empowerment, women participating in microcredit interventions tend to exhibit more financial security and self-confidence compared to a control group (Kim et al., 2009). However, several recent studies report no relation between access to microcredit and women's decision-making power within their households, which is an indicator of relational empowerment (Banerjee, Duflo, Glennerster, & Kinnan, 2015; Crépon, Devoto, Duflo, & Pariente, 2015; Tarozzi, Desai, & Johnson, 2015). Other research reports that microloans procured by women may even result in women's disempowerment, possibly because the loans are used for household assets over which women hold no control (e.g., Garikipati, 2008; Johnson, 2004). Interestingly, the type of loan acquired by women also seems to influence empowerment outcomes. Previous research suggests that small loans for day-to-day expenses, which are obtained via informal networks and are perceived as socially dishonourable, are more likely than planned loans to increase women's bargaining power. It is reasoned that if women undergo the social humiliation associated with these loans, they are met with more appreciation and thus bargaining power within the household (Garikipati, Agier, Guérin, & Szafarz, 2017). The current research specifically examines the impact of training – not credit – offered to female microfinance borrowers, who have access to microcredit and thus are unlikely to be credit constrained.

2.2. The impact of training on women's empowerment

Over the years microfinance services have evolved to not only offer microcredit but also different financial and non-financial services (e.g., Armendáriz & Murdoch, 2010). Many microfinance institutions provide additional training on the management of income-generating activities to increase the recipients' human capital (Augsburg, De Haas, Harmgart, & Meghir, 2015). While some research has provided evidence on the positive impacts of training on business outcomes (for reviews see Frese, Gielnik, & Mensmann, 2016; McKenzie & Woodruff, 2014), other research reports only small or no impacts in low income countries (for a review see McKenzie & Woodruff, 2014).

It is interesting to note that, even though other studies do not explicitly focus on impacts of training on women empowerment, three studies provide evidence that a business training improves business outcomes for male entrepreneurs, but not for female entrepreneurs (Berge, Bjorvatn, & Tungodden, 2014; De Mel, McKenzie, & Woodruff, 2009; Giné & Mansuri, 2014). If business outcomes turn out to be positively related to empowerment, these

results at least suggest that business training may not have the intended effects for women's empowerment.

Two studies reported positive impacts of training female entrepreneurs on different aspects of women's empowerment. First, participating in intensive technical and social awareness training, but not only receiving credit, was positively related to intra-household decision making power among female microfinance borrowers in South India (Holvoet, 2005). Furthermore, longer retention in a lending group and more intensive training changed norm-guided male decision making to more joint and female decision-making. Second, female members of microfinance institutions who participated in diverse trainings in soft skills, business, and vocational skills reported higher levels of personal control beliefs and larger networks in Sri Lanka (Hansen, 2015). Berge and colleagues (2014) suggest that trainings for female entrepreneurs should increase women's motivation to manage business activities and consider external constraints (i.e., household responsibilities) to increase the effectiveness of training among women. In the current study we examine the impact of a training tailored to the needs of women by highlighting essential entrepreneurial skills from a gendered perspective (Bauer et al., 2004).

Based on the brief literature survey above we expect that inviting female microfinance borrowers to this training should increase women's internal control beliefs as well as their intra-household decision making power compared to a control group of female microfinance borrowers (no training). However, as mentioned above, microfinance services may also have negative impacts (e.g., if men feel excluded, Rahman, 1999). For example, research showed an increased risk of intimate partner violence if women profit from education which increased more liberal ideas about gender roles (Jewkes, Levin, & Penn-Kekana, 2002). In general, women's transgression of conservative gender roles or challenges to male privilege is related to increased relational friction (Jewkes, 2002). This implies that inviting female microfinance borrowers alone to the GET Ahead training should increase relational friction.

2.3. The additional impact of inviting husbands to attend the training

Inequality between members of an advantaged and a disadvantaged group, such as men and women, is shaped by their relationship (Prentice & Shelton, 2012). This implies that to achieve change towards more equity, both parties need to be involved (for a review, see Dixon, Levine, Reicher, & Durrheim, 2012; Prentice & Shelton, 2012). More precisely, men would need to understand the perspective of women and be willing to change, whereas women would need to become aware of their disadvantaged position and actively strive for more equity. Research conducted in India has also stressed the need to engage both men and women to achieve gender equity (Chowdhury & Patnaik, 2010). Inviting men to training could contribute to more egalitarian gender relations as men's attitudes and behaviours need to change to achieve gender equality (Howson & Flood, 2015). In fact, men may influence women's agency both in direct interactions (i.e., the household) and indirectly as decision-makers and community leaders (e.g., Fleming, Barker, McCleary-Sills, & Morton, 2013; Howson & Flood, 2015). Thus, involving men may be an important prerequisite to changing existing gender relations.

In the context of microcredit, two studies investigated the idea of involving both women and their husbands. First, to avoid that female borrowers may face intimate partner violence (as mentioned above, see Rahman, 1999; Rahman et al., 2011) inviting husbands is suggested to help to overcome this relational friction. Second, a study investigated the interest of female borrower to invite their husbands to solidarity-groups (Allen, Armendáriz, Karlan, & Mullainathan, 2010). Only a few women invited their

husbands. The authors speculated that women might only involve their husbands if they hoped to solve arguments about the loan or to increase their decision-making power.

One promising way to transform existing gender relations in general could be inviting spouses to training (e.g., Mbweza, Norr, & McElmurry, 2008). Therefore, we expect that inviting female microfinance borrowers and their husbands to the GET Ahead training improves relational empowerment – either by means of a decrease in relational friction or by an increase in bargaining power – compared to female borrowers who were invited to participate alone in training and even more so for women who were not invited (control group).

3. Context

Although Vietnam, our study setting, has made clear developmental progress in recent years—achieving economic growth, shifting toward industrialization and modernization, and increasing social equity (World Bank, 2014)—it still ranks 121 out of 187 nations on the Human Development Index and 58 out of 149 on the Gender Equality Index (UNDP, 2014). Vietnam is a patriarchal society, with strong traditional gender roles (Duvvury, Carney, & Nguyen, 2012). We conducted our research in two provinces in northern Vietnam: Vinh Phúc and Hà Nội. These provinces are neighbouring provinces in the Red River Delta which are very similar in their geographical characteristics and are comparable with respect to their economic development. The Red River Delta covers an area of 21,060 km² and is somewhat more affluent in comparison to other areas in Vietnam (for example see poverty rates in 2015: 7.0% in Vietnam, 3.2% in the Red River Delta; General Statistics Office of Vietnam, 2015). Furthermore, the two provinces rank among the highest out of the 63 provinces in Vietnam in terms of good business environments for the private sector (Vinh Phúc ranks 4th; Hà Nội ranks 24th; PCI, 2015).

3.1. Microfinance in Vietnam

Only 21% of the adult population has access to formal financial services in Vietnam (International Finance Corporation [IFC], 2014). However, microfinance is widespread (e.g., Asian Development Bank [ADB], 2012). Microfinance services are mainly offered by two state-owned banks; the Vietnam Bank for Agriculture and Rural Development and the Vietnam Bank for Social Policies (Asian Development Bank [ADB], 2014). In addition, the People's Credit Fund and two licensed microfinance institutions, M7-MFI and TYM, are the leading formal providers of financial services to the poor. However, the two licensed microfinance institutions and 48 semi-formal microfinance institutions account for less than 2 percent of the market share of outstanding loans (International Finance Corporation [IFC], 2014). In 2015, 28 financial service providers financed 7.5 million borrowers with total loan amounts of \$6.7 billion (MIX Market, 2017).³ The largest institution in northern Vietnam, the Tao Yeu May fund, is owned by the Vietnam Women's Union and started operating in 1992, with the aim of improving the quality of life and status of poor women and their families. At the time of this study, TYM operated in 56 districts in Northern and Central Vietnam offering microloans to 119,653 borrowers adding to a total of 906,82 billion Vietnamese Dong in outstanding loans (\$39 million). The TYM fund offers microcredit loans, savings, assistance funds, training, and social support activities. Individual borrowers can receive loans from 1 million to 25 mil-

lion Vietnamese Dong (\$43–\$1000) with repayment terms from 25 to 100 weeks depending on the type of loan (TYM, 2017).

3.2. Intervention

All female borrowers have access to microcredit loans. In addition, female borrowers in the two treatment conditions received access to additional business training tailored to the needs of women. In the first treatment condition female borrowers received access to training for which their husbands were also invited. In the second treatment condition female borrowers received access to training individually. Female borrowers in the two treatment arms were invited to nine monthly training sessions that lasted 45–60 min each. The training sessions were based on the GET Ahead program (ILO, 2011). This training program has been used in 18 countries since the late 1990s. Its ultimate goal is to increase women's economic and social empowerment (ILO, 2011). The training program consists of nine training modules. Each module focuses on a different theme (see Table 1 for an overview). This training program was culturally adapted to the Vietnamese context. The sessions were shortened from approximately 240 min to 45–60-min sessions selecting and adopting examples and exercises to the present cultural context.⁴ The gender component included three modules. The first module focused on gender beliefs, roles, prejudice, and gender equity. The second module centred on female entrepreneurs' business skills, confidence, and identifying successful business goals. The third module covered the difficulties and challenges for women in doing business and setting up a cooperation. The pure business component included six different modules. The fourth module centred on identifying and selecting business ideas and opportunities. The fifth module considered the importance of product, price, promotion, and place in marketing and business sales. The sixth module focused on calculating interest rates and the possibility of saving. The seventh module discussed opening and managing cash books. The eighth module focused on opening and managing account receivable and account payable books. The last module centred on calculating purchasing and production costs and costs of sold goods. In total, 16 TYM loan officers received a training by the TYM headquarter staff to be able to teach the modules. All of these 16 trained loan officers provided training in all centres and both treatment conditions. To support trainees' understanding of content, loan officers used various teaching methods and materials, such as role playing, cards, and pictures. In addition to monthly training sessions, the TYM staff offered clients access to consultations repeating the discussed training material at weekly meetings when borrowers arrived to make payments on their loans. The training sessions were free of charge and voluntary. We compared female borrowers who received additional training on their own with female borrowers whose husbands also received access to the training; to encourage the husbands to participate, we offered them financial compensation for participation in the training sessions.

4. Methods and data inspection

4.1. Methods

4.1.1. Research design

We randomly assigned 187 lending centres from three branches in Vinh Phúc and one in Hà Nội to one of three conditions: (1) female borrowers receiving a loan and access to training to which their husbands were invited, (2) female borrowers receiving a loan and access to training individually, or (3) a control group of female

³ These figures are based on available information provided to MixMarket by financial services providers. Important to note is that this information does not include all institutions in Vietnam but it offers an estimate.

⁴ The training module in Vietnamese can be obtained upon request.

Table 1
Modules of the GET Ahead Training package.

Module 1: Gender and gender equity
Module 2: The business woman and her self-confidence
Module 3: The business woman and her environment
Module 4: The business project: Business ideas
Module 5: The business project: Marketing and how to sell with success
Module 6: The business project-finance: Calculations and how to calculate interest rate
Module 7: The business project-finance: Managing cash
Module 8: The business project-finance: How to record accounts receivable and accounts payable
Module 9: The business project: How to calculate costs of production and cost of goods sold

Table 2
Personal control belief scale.

	Internal locus of control	External locus of control
1	What happens to me is my own doing.	Sometimes I feel that I don't have enough control over the direction my life is taking.
2	When I make plans, I am almost certain that I can make them work.	When I make plans, it is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow.
3	Getting what I want has little or nothing to do with luck.	Many times, I might just as well decide what to do by flipping a coin.
4	It is impossible for me to believe that chance or luck plays an important role in my life.	Many times I feel that I have little influence over the things that happen to me.

borrowers receiving only a loan. The data were collected at three measurement points: baseline data in October–November 2011, or three months before the training started; midline data in March–May 2013, or six months after the last training module; and endline data in October–November 2013, one year after the last training module. On average, each interview lasted approximately one hour (ranging from 45 to 90 min).

The randomization was stratified by lending branch; each branch experienced the same proportion of two training and one control conditions. To account for the low expected participation by husbands, we oversampled the training condition group in which husbands were invited. We selected 70 credit centres in which female borrowers received a loan and access to training to which their husbands were invited, 31 credit centres in which female borrowers received a loan and access to training individually, and 86 credit centres in which female borrowers received only a loan. In addition, we excluded clients who received permission from TYM to miss monthly compulsory centre meetings, due to their work, because they could not attend any training. In each centre, we interviewed a random selection of a maximum of 23 female borrowers; if the centre had fewer than 23 members, all of them were interviewed. A total of 4041 female borrowers were sampled at the baseline assessment, of whom 1509 received a loan and access to training to which their husbands were invited (T1), 673 received a loan and access to training individually (T2), and 1859 received only a loan (C).

4.1.2. Procedure

Interviews were conducted at all three data collection points (baseline, midline, and endline). Twenty-three native enumerators interviewed the participants one-on-one to gather information about each client's individual characteristics, households, socio-economic status, business practices, gender awareness, cognitive and non-cognitive skills, household decision making, loans, and relational friction.⁵ All study materials were carefully pretested and adapted to the cultural context.

4.1.3. Measures

We assessed *personal control beliefs* to reflect personal empowerment, using four items adapted from Rotter's (1966) Locus of Control scale. The items assess the extent to which participants believe that they are in control of their lives (internal control beliefs) or that their lives are controlled by environmental factors outside their control, such as fate or chance (external control beliefs). Participants selected a statement from pairs to match their beliefs; one statement reflected internal and the other represented external control beliefs (see Table 2). Because one item appeared to

be incorrectly translated, we removed it from the scale and used the remaining three items for the measure. We assigned one point for each statement reflecting an internal locus of control and summed the total, so the scale ranged from 0 (no internal control belief) to 3 (strong internal control belief). The average score on personal control beliefs before the intervention varies between 1.78 and 1.90 (see Table 4).

Relational empowerment was assessed with two aspects; relational friction and intra-household decision making power.

First, we assessed *relational friction* with seven items. The female borrowers were asked to indicate how often, in the previous six months, their spouse engaged in the seven acts: "verbal aggression", "physical assault (pushed, slapped, beat or hit with a fist)", "threatened and used an object like sticks, knife etcetera", "kept you from seeing your family members or friends", "insisted on knowing where you are at all times", "wanted you to ask permission before doing anything", and "insulted or humiliated you in front of other people" (Straus, 1979; World Health Organization [WHO], 2005). The female borrowers indicated how often, in the previous six months, they had experienced these seven acts on a five-point scale, from 0 (never) to 4 (very often). We computed an overall scale for relational friction by averaging the score on these seven items. The average score on relational frictions before the intervention varies between 0.12 and 0.14 (see Table 4). This implies that, on average, women indicated that they never experienced any form of relational frictions. The very low score on relational friction is somewhat surprising and may be due to some underreporting on one or more of the seven items of relational frictions. Women may especially be tempted to underreport on the sensitive questions related to relational aggression.⁶

For this reason, we also present estimates on an index which only included items which assessed relational oppression, the extent to which female borrowers were limited in their personal freedom by their husbands (four items: kept you from seeing your family members or friends, insisted on knowing where you are at all times, wanted you to ask permission before doing anything, and insulted or humiliated you in front of other people). We call this additional index *relational oppression*. This index excluded three items assessing relational aggression against female borrowers (verbal aggression, physical assault and threatened and used an object like sticks, knife etcetera).

⁶ By using the item count technique Bulte and Lensink (2019) estimate that between 10 and 20 percent of women in our sample are hit by their husband. Unfortunately, our dataset doesn't enable to test whether underreporting may also be a problem for other items in our relational frictions index. However, it seems plausible to assume that underreporting is especially problematic for items related to relational aggression, and does not or to a much lower extent affect items related to relational oppression.

⁵ We used self-reported data for all our measures. We believe it is unlikely that participants will answer the questions differently due to their participation in the training or apply knowledge learned in the training that could impact the measures.

Second, to assess *intra-household decision making*⁷, we used ten items that measured who made financial decisions (adapted from Banerjee, Duflo, et al., 2015). For ten expenditures, the female borrowers indicated who made most decisions: their husband, they and their husband together as a couple, or they alone.⁸ The items assessed decision making about various fields, such as food, tuition, loans, investments, and financial assistance for family members. We computed a scale by assigning 0 points for each decision made by the husband, 0.5 points for each decision made by the couple together, and 1 point for each decision made by the wife, then summed these points for all ten items. The average score on intra-household decision making before the intervention varies between 6.21 and 6.47 (see Table 4).

However, decision making power among couples may differ with respect to more male dominated domains and the daily domain. More precisely, previous research suggests that women's financial decision making in domains that are traditionally male dominated and concern larger sums of money reflect a different type of decision making power compared to decisions in domains that are traditionally female dominated (e.g., Dutt, Grabe, & Castro, 2016; Johnson, 2016). Therefore, we asked female borrowers to indicate the extent to which they participated in decision making in two domains: *decision making on larger expenditures*, such as loans, savings, and investments, and *decision making in the daily domain*, such as food or clothing. To test whether this differentiation can also be empirically supported in our data, we conducted a principle component analysis. As expected, seven items loaded on a factor assessing decision making power on larger expenditures, and three items loaded on a factor assessing decision making power in the daily domain.⁹ Therefore, we computed two scales. The subscale of decision making on larger expenditures included seven decisions related to expenditures such as "Who makes most decisions about asking for a loan?" ($\alpha_{baseline} = 0.91$, $\alpha_{midline} = 0.89$, $\alpha_{endline} = 0.87$). The average score on decision making on larger expenditures before the intervention varies between 3.88 and 4.06. The subscale of decision making in the daily domain included three decisions related to expenditures such as "Who makes most decisions about what food items to purchase?" ($\alpha_{baseline} = 0.84$, $\alpha_{midline} = 0.88$, $\alpha_{endline} = 0.71$). The average score on decision making in the daily domain before the intervention varies between 2.32 and 2.41. We confirmed the two factors at the midline and endline, using confirmatory factor analysis (see Table 3).

4.2. Data inspection

4.2.1. Balancing test

We tested for baseline differences in observable characteristics across the three groups by regressing the demographic variables, control variables, and outcome variables at the baseline on dummies, to determine the assignments to the two training conditions. Because the randomization took place at the microfinance centre level, we clustered the standard errors at the centre level. We also test for baseline differences between the two treatment groups.

⁷ In the construction of our measures we have used a principle component analyses only for household decision-making power as we theorized that this construct should be differentiated between two 'categories' of decision-making: decision-making in the daily domain and decision-making on larger expenditures (p. 20). For our other measures we had no a-priori reason to expect the necessity of a differentiation between two or more components, thus we used an equally-weighted index.

⁸ At the baseline, the participants were asked to decide among husband/other, couple, and themselves. However, at the midline and end line, "others" was presented as a fourth category. Both the husband and others options were coded as 0 for the scale construction.

⁹ The principle component factor analysis indicated that one item (health expenditures) was not related to one of the two factors. Because the results were unaffected by the addition or removal of this item, we included it in the scale construction.

Table 3
Intra-household decision making scales.

<i>Large expenditure decision making</i>
Who makes most decisions about asking for a loan?
Who makes most decisions about consumer durable items? (TV, Fridge, Tape recorder etc.)
Who makes most decisions about what health expenditures to make?
Who makes most decisions about saving for business and for household?
Who makes most decisions about expenses for home purchase, improvement or repair?
Who makes decisions about where to invest surplus money?
Who makes decisions about how to assist family members?
<i>Daily domain decision making</i>
Who makes most decisions about what food items to purchase?
Who makes most decisions about what educational expenditures to make (tuition, etc.)?
Who makes most decisions about what clothing items to purchase?

The results of the balancing test indicated no reason to doubt the randomization (see Table 4). We also conducted joint significance tests across all baseline characteristics by regressing treatment status on the set of baseline characteristics. These estimates also suggest that all groups are similar ($p > .67$).

4.2.2. Attrition

Table 5 shows that 4041 female microfinance borrowers were interviewed initially, at the midline 3511 female microfinance borrowers were interviewed again. However, the attrition rate from baseline to midline was higher in the condition where female borrowers were invited to receive training individually. To compensate for this larger attrition, we randomly selected and interviewed an additional 315 female microfinance borrowers to increase the sample size in this condition. Together this resulted in 3826 female microfinance borrowers at the midline. A sample of female borrowers who dropped out and indicated why revealed that 10 women were no longer clients of TYM, 95 refused to participate in the study, and 40 provided different reasons (e.g., time constraints). At the endline, supported by TYM, we interviewed almost all female microfinance borrowers who were interviewed at the baseline and/or at the midline resulting in 4350 borrowers at the endline. 3412 female borrowers were interviewed at all three measurement occasions (T1 = 1311; T2 = 549; C = 1552).

We created an attrition dummy; equal to 1 if a household was not interviewed at the midline or endline, and then used a logistic regression analysis to check for non-random attrition (see Table 6)¹⁰. We regressed attrition on the treatment groups T1 and T2, age, lending branches, marital status, household size, baseline measures of all dependent variables, and interactions between treatment indicators and demographic characteristics. The analysis suggests that attrition was random. We only found that in one of the lending branches attrition was higher. Yet, Wald tests showed no difference in attrition for lending branches interacted with the two treatment conditions.

4.2.3. Training acceptance

It appears that most of the invited female borrowers participated in the offered training, suggesting minor non-compliance

¹⁰ Please note that the sample in the attrition-table differs from the sample reported in the tables in the main-analyses. We have added tables reflecting attrition analysis for the three samples (midline, endline, double difference) in the appendix (Table A3). As can be seen, the results are almost the same. Please note that we conducted the analyses below based on the sample for the control beliefs-variable. Moreover, in the attrition analysis, some variables with missing variables in the baseline are taken into account. Thus, our sample sizes presented in table A3 still differ somewhat from the tables in the main text.

Table 4
Descriptive overview of control variables, descriptive statistics, and dependent variables and a balancing test between conditions.

	Female borrowers receiving training with husbands (T1)		Female borrowers receiving training individually (T2)		Female borrowers receiving only a loan (C)		Test of equality [Regress var_baseline T1 T2, vce (cluster centre-level)]		
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range	T1 = C	T2 = C	T1 = T2
Age	43.47 (10.32)	19–71	43.88 (10.50)	20–71	44.02 (10.26)	20–72	0.39	0.82	0.58
Educational level	1.93 (0.68)	1–5	1.97 (0.66)	1–5	1.95 (0.65)	1–5	0.75	0.71	0.57
Region (Hà N i)	0.25 (0.43)	0–1	0.27 (0.45)	0–1	0.26 (0.44)	0–1	0.89	0.91	0.83
Married	0.81 (0.39)	0–1	0.83 (0.38)	0–1	0.82 (0.38)	0–1	0.52	0.65	0.32
Household size	4.74 (1.56)	1–12	4.71 (1.64)	1–15	4.77 (1.53)	1–13	0.68	0.57	0.82
Control beliefs	1.78 (0.79)	0–3	1.78 (0.76)	0–3	1.90 (0.81)	0–3	0.08*	0.21	0.97
Relational friction	0.13 (0.22)	0–2.3	0.14 (0.22)	0–1.3	0.12 (0.19)	0–1.6	0.61	0.23	0.41
Relational oppression	0.08 (0.24)	0–2.75	0.08 (0.22)	0–2.5	0.10 (0.25)	0–2.5	0.29	0.06**	0.27
Overall decision making	6.47 (2.19)	0–10	6.21(2.15)	0–10	6.45(2.08)	0–10	0.90	0.18	0.17
Decision making on larger expenditures	4.06 (1.61)	0–7	3.88 (1.54)	0–7	4.05 (1.50)	0–7	0.99	0.14	0.15
Decision making in daily domain	2.41 (0.78)	0–3	2.32 (0.81)	0–3	2.39 (0.76)	0–3	0.75	0.45	0.34

Notes. Descriptive statistics of control variables, descriptives, and dependent variables at baseline are displayed per condition. The test of equality displays *p*-values observed in ordinary least square regressions to test for possible differences at baseline between the conditions. Standard errors are clustered at the centre level (187 centres). We also conducted joint significance tests across all baseline characteristics by regressing treatment status on the set of baseline characteristics. These estimates strongly suggest that all groups are similar on average as the *F* statistics were highly insignificant (*p* > .67; results can be obtained on request). **p* < .10. ***p* < .05. ****p* < .01.

Table 5
Attrition per condition per measurement-time.

	Female borrowers receiving training with husbands (T1)	Female borrowers receiving training individually (T2)	Female borrowers receiving loan but no training (C)	Total
Female borrowers at baseline	1509	673	1859	4041
Female borrowers at midline	1328	565	1618	3511
Additional borrowers at midline	–	315	–	3826
Female borrowers at end line	1507	988	1855	4350
Attrition from baseline – midline	181	108	241	530
Attrition rate baseline – midline	12.0%	16.1%	13.0%	15.09%
Attrition from baseline – end line	2	0	4	6
Attrition rate baseline – end line	0.1%	0.0%	0.2%	0.1%

Note. The attrition rate is calculated based on the originally sampled dataset, excluding the 315 female borrowers assigned to treatment condition T2 who were interviewed at the midline – post facto- to compensate for the higher attrition-rate in this condition.

problems. More specifically, on average 80.2% of the female borrowers receiving a loan and access to training individually participated in each of the offered training modules (range: 74.6–83.3%). A similar pattern was observed for female borrowers receiving a loan and access to training to which their husbands also were invited: on average 83.4% of the invited female borrowers participated in each of the offered training modules (range: 80.9–84.6%). However, on average only 24.1% of all invited husbands participated in each of the offered training modules (range: 7.2–39.1%). Note that a larger proportion of the invited husbands participated in the gender component modules which were offered first (see Table 7 for an overview of the attendance per training module).

5. Identification strategy

We first conducted intention to treat (ITT) estimates at the midline and endline, with post-treatment regressions, using control variables.¹¹ The controls helped increase the precision of our estimates of the impact of the GET Ahead gender component training on outcomes Y_{ijt} , measured for individual *i* in centre *j* at time *t* (separately for midline and endline), according to the following specification:

$$Y_{ij} = \beta_0 + \beta_1 T1_{ij} + \beta_2 T2_{ij} + \beta_3 Z_{ij} + \varepsilon_{ij} \quad (1)$$

¹¹ All these results report the findings of analyses conducted with control variables (age, education, lending branches), which did not differ from the results obtained through analyses without control variables. These latter results are available on request.

Table 6
Non-random attrition.

	B (SE)
T1	–0.04 ^{–1} (0.09)
T2	0.08 (0.17)
Age	–0.07 ^{–2} (0.09 ^{–2})
Control beliefs at baseline	–0.01 (0.01)
Relational friction at baseline	0.01 (0.06)
Larger expenditures at baseline	–0.01 ^{–1} (0.01)
Daily domain expenditures at baseline	0.01 (0.02)
Age*T1	–0.07 ^{–2} (0.01 ^{–1})
Age*T2	0.07 ^{–2} (0.02 ^{–1})
Control beliefs at baseline*T1	0.03 ^{–1} (0.02)
Control beliefs at baseline *T2	0.04 (0.03)
Relational friction*T1	–0.01 (0.07)
Relational friction*T2	0.06 (0.10)
Larger expenditures*T1	0.04 ^{–1} (0.01)
Larger expenditures*T2	0.02 (0.02)
Daily domain expenditures*T1	–0.01 (0.02)
Daily domain expenditures*T2	–0.09 (0.05)*
Constant	0.18** (0.06)
Observations	3286
R-squared	0.016

Notes. Coefficients indicate differences in attrition. We have reported branch-fixed effects. Standard errors adjusted for cluster effects at the centre level (187 centres) are in parentheses. We also conducted these analyses with a Logit regression, which yielded the same results. We conducted a joint significance test by regressing all characteristics on attrition, this estimate suggests that there are no differences based on the included characteristics [$F(26, 185) = 1.35, p = .129$]. We also conducted a joint significance test by regressing all interactions for T1 and T2 on attrition, this estimate suggests that these interactions do not explain attrition [$F(12, 185) = 0.65, p = .797$]. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. **p* < .10. ***p* < .05. ****p* < .01.

Table 7
Overview of attendance at the training sessions by female borrowers and their husbands.¹

	Female borrowers receiving training alone (T2)		Female borrowers receiving training with their husband (T1)			
	Participation wife		Participation wife		Participation husband	
	n	%	n	%	n	%
Gender training module 1	693	79.0	1095	84.6	442	39.1
Gender training module 2	654	74.6	1058	81.8	403	35.6
Gender training module 3	715	81.5	1094	84.5	363	32.1
Business training module 4	727	82.9	1084	83.8	342	30.2
Business training module 5	688	78.5	1068	82.5	295	26.1
Business training module 6	727	82.9	1095	84.6	292	25.8
Business training module 7	722	83.3	1087	84.0	137	12.1
Business training module 8	710	81.0	1089	84.2	98	8.7
Business training module 9	686	78.2	1047	80.9	82	7.2

¹ In addition to the reported ITT analyses we conducted IV-regressions to obtain insight in the impact of participation and not invitation to the training modules by female borrowers. However, since the uptake of the training is consistently high (>74.5%) these analyses are not meaningful and showed very similar results. The results can be obtained upon request.

where $T1_{ij}$ is a dummy equal to 1 if a woman has access to training for which her husband is invited; $T2_{ij}$ is a dummy equal to 1 if a woman has access to training individually; Z_{ij} is a vector of variables age, educational level, and region measured at the baseline. As we used a stratified randomization at branch level, Z also includes dummies for the different branches, and ε_{ij} is an error term. In these and all following analyses, the standard errors are clustered at the centre level to control for possible dependency between female borrowers in the same centres. The coefficients of interest are β_1 and β_2 , which measure the impact of providing female borrowers access to training individually or training for which their husbands are invited, respectively.

Next, we conducted double difference estimations with the age, educational level, and lending branch control variables.^{12,13} We also examined the impact of being assigned to the two training conditions, compared with the control condition, and differentiated midline and endline effects. We thus estimated the impact of the GET Ahead training on outcome Y_{ijt} for individual i in centre j at time t using the following specification:

$$Y_{ijt} = \beta_0 + \beta_1 \text{Mid}_{ijt} * T1_{ijt} + \beta_2 \text{Mid}_{ijt} * T2_{ijt} + \beta_3 \text{End}_{ijt} * T1_{ijt} + \beta_4 \text{End}_{ijt} * T2_{ijt} + \beta_5 T1_{ijt} + \beta_6 T2_{ijt} + \beta_7 \text{Mid}_{ijt} + \beta_8 \text{End}_{ijt} + \beta_9 Z_{ijt} + \varepsilon_{ijt} \quad (2)$$

where Mid_{ijt} and End_{ijt} are dummies equal to 1 when the observation belongs to the midline or endline survey, respectively; $T1_{ijt}$ is a dummy equal to 1 if a woman has access to training for which her husband is invited; $T2_{ijt}$ is a dummy equal to 1 if a woman has access to training individually; t indicates whether an observation belongs to the baseline, midline, or endline survey; β_5 and β_6 are fixed effects for T1 and T2 respectively measuring whether T1 and T2 differ from the control group in the baseline; β_7 and β_8 are fixed effects for the midline and endline respectively measuring whether the midline and endline differ from the baseline estimate for the control group; Z_{ijt} is a vector of the control variables age, educa-

tional level, and lending branch in time t ; and ε_{ijt} is an error term. The coefficients of interest are β_1 , β_2 , β_3 , and β_4 . That is, β_2 and β_4 estimate the impact of providing female microfinance borrowers access to the GET Ahead training individually at the midline and at the endline, respectively, whereas β_1 and β_3 estimate the impact of providing female microfinance borrowers access to the GET Ahead training to which their husbands were invited at the midline and endline, respectively.

6. Results

6.1. Personal control beliefs

We expected that female borrowers who received access to the GET Ahead for women in enterprise training would develop more internal control beliefs; Table 8 partly confirms this expectation. The post-treatment regressions indicated that training increased internal control beliefs at the endline but not at the midline for female borrowers with access to training (see Table 8, Columns 1 and 2). The double difference regressions provided slightly different results though, suggesting a small positive impact of individual training at the midline and an impact of both the individual and of the joint training at the endline (see Table 8, Column 3)¹⁴. The results clearly suggest that it may take some time before training changes women's personal control beliefs; the endline effects are stronger than the midline effects. We do not find that inviting husbands significantly changes the impact of the training on control beliefs of women who have been offered the training.

6.2. Relational friction

Table 9 shows that training reduces relational friction at the endline but not at the midline, across both estimation methods. However, as the relational friction index may be biased due to underreporting on some items, specifically those related to relational aggression, we also consider the impact on relational

¹² We conducted double difference estimations on balanced data, including only participants who reported data on all relevant variables at all three assessment points, to control for possible fixed effects at the group level. We use a consistent sample for all dependent variables, only including responses from women who provided responses on all variables at all time points. No important differences arose for the double difference estimations with balanced versus unbalanced data; thus, both estimations yielded similar results.

¹³ We have also estimated double difference models including fixed effects at the individual level, see Table A2 in the appendix. However, as expected, these results are almost the same as the (sum of the) fixed effects at the individual level are perfectly collinear with the treatment dummies (fixed effects at treatment level), in case of a balanced panel.

¹⁴ Please note that the point estimates for the post-treatment regressions "T2 x Midline" differ substantially from the point estimates for the double-difference specifications. In order to test whether these differences are due to differences in the sample used for the post-treatment vis a vis the double difference specification, we also estimated the post-treatment models using the sample used for the double difference specification, see Table A1 in the appendix. It appeared that these estimates give very similar results as the post-treatment estimates presented in the text (estimates can be obtained upon request). Thus, it is unlikely that the differences in the point estimates are not due to varying samples. Rather, it should be explained by the "fixed effects" that are taken into account in the double difference specification.

Table 8
Results on women's control beliefs.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.06 (0.09)		0.15 (0.10)
T2 × Midline	0.11 (0.12)		0.26** (0.12)
T1 × Endline		0.18** (0.09)	0.30** (0.125)
T2 × Endline		0.33*** (0.10)	0.52*** (0.14)
Constant	1.80*** (0.12)	2.45*** (0.12)	1.91*** (0.10)
N	3386	3325	7218
R ²	0.035	0.146	0.070
T1 Mid = T2 Mid	0.19		0.87
T1 End = T2 End		1.76	0.14
T1 Mid = T1 End			3.31
T2 Mid = T2 End			5.30**

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. **p* < .10. ***p* < .05. ****p* < .01.

Table 9
Results on women's experienced relational friction.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.03 ⁻¹ (0.02)		-0.02 (0.03)
T2 × Midline	-0.03 (0.02)		-0.10** (0.04)
T1 × Endline		-0.12*** (0.03)	-0.17*** (0.04)
T2 × Endline		-0.11** (0.04)	-0.16*** (0.06)
Constant	0.28*** (0.03)	0.51*** (0.06)	0.34*** (0.03)
N	3369	3070	7218
R ²	0.062	0.199	0.123
T1 Mid = T2 Mid	2.23		3.32*
T1 End = T2 End		0.14	0.95
T1 Mid = T1 End			19.56***
T2 Mid = T2 End			2.15

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. **p* < .10. ***p* < .05. ****p* < .01.

Table 10
Results on women's experienced relational oppression.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.02 (0.02)		-0.01 (0.04)
T2 × Midline	-0.02 (0.02)		-0.10** (0.05)
T1 × Endline		-0.10*** (0.03)	-0.16*** (0.05)
T2 × Endline		-0.09** (0.04)	-0.17*** (0.06)
Constant	0.17*** (0.03)	0.40*** (0.07)	0.22*** (0.03)
N	3391	3095	7218
R ²	0.062	0.158	0.098
T1 Mid = T2 Mid	2.56		2.80*
T1 End = T2 End		0.13	0.03
T1 Mid = T1 End			15.96***
T2 Mid = T2 End			1.90

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. **p* < .10. ***p* < .05. ****p* < .01.

oppression, which assesses the extent to which female borrowers were limited in their personal freedom by their husbands.¹⁵ Table 10 shows that these results are the same. Again, it may take

time before the training starts to exert an impact. In contrast to our expectations, we do not find different impacts if husbands were invited to participate (see Table 10, Columns 1–3).

6.3. Intra-household decision making

The post-treatment regressions in Table 11 show a significant increase in women's intra-household decision making at both

¹⁵ Bulte and Lensink (2019) analyse the impact of the training on physical assault, one item of the relational frictions index, ignored in the relational oppression index. They find opposite results when the item is based on a List experiment (the item count technique) or based on survey data. The results based on the List experiment suggest that the training accentuated physical assault.

Table 11
Results on women's intra-household decision making power.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.21 [†] (0.11)		0.27 (0.17)
T2 × Midline	0.01 ⁻¹ (0.17)		0.09 (0.24)
T1 × Endline		0.33 [†] (0.14)	0.39 ^{**} (0.19)
T2 × Endline		0.05 (0.01)	0.26 (0.22)
Constant	5.33 ^{***}	4.73 ^{***}	6.11 ^{***}
N	3318	3395	7218
R ²	0.069	0.066	0.047
T1 Mid = T2 Mid	1.62		0.60
T1 End = T2 End		3.10 [†]	0.42
T1 Mid = T1 End			0.77
T2 Mid = T2 End			0.27

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. [†]*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

Table 12
Results on women's decision making about larger expenditures.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.13 (0.08)		0.20 [†] (0.11)
T2 × Midline	-0.05 (0.12)		0.05 (0.16)
T1 × Endline		0.34 ^{***} (0.11)	0.40 ^{***} (0.13)
T2 × Endline		0.10 (0.13)	0.33 [†] (0.17)
Constant	2.93 ^{***} (0.19)	2.65 ^{***} (0.21)	3.69 ^{***} (0.15)
N	3312	3396	7218
R ²	0.047	0.044	0.032
T1 Mid = T2 Mid	2.24		0.95
T1 End = T2 End		3.88 [†]	0.25
T1 Mid = T1 End			3.16 [†]
T2 Mid = T2 End			4.89 ^{**}

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. [†]*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

Table 13
Results on women's decision making in the daily domain.

	Midline post-treatment regression (1)	Endline post-treatment regression (2)	Double difference regression (3)
T1 × Midline	0.08 (0.06)		0.06 (0.09)
T2 × Midline	0.06 (0.09)		0.04 (0.11)
T1 × Endline		-0.01 (0.06)	-0.01 (0.10)
T2 × Endline		-0.05 (0.09)	-0.07 (0.11)
Constant	2.40 ^{***} (0.12)	2.07 ^{***} (0.11)	2.42 ^{***} (0.11)
N	3416	3406	7218
R ²	0.088	0.142	0.076
T1 Mid = T2 Mid	0.09		0.06
T1 End = T2 End		0.28	0.27
T1 Mid = T1 End			1.09
T2 Mid = T2 End			1.68

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The variation in the reported *N* is caused by differences in women's non-response to the specific dependent variables and/or included control variables. We conducted the double difference analyses using a consistent sample for all dependent variables. However, the reported results were very similar to the results we observed when only balancing the data for each dependent variable separately. For all analyses Wald tests are reported to test for equality of the two treatment condition coefficients. The Wald statistic is reported in the table. T1 = treatment condition in which female borrowers were invited to training with their husband, T2 = treatment condition in which female borrowers were invited to training individually. [†]*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

midline and end line, if the training is offered to female borrowers and their husbands. However, the observed significance level for women's intra-household decision making at the midline suggests no strong evidence for an impact as may be reflected by no observed impact in the double difference estimation.¹⁶

Importantly, as we have argued before that it may be relevant to distinguish between women's decision making on larger expenditures versus decision making in the daily domain, we present additional analyses in Tables 12 and 13. These tables clearly suggest that the findings are mainly driven by women's decision making on larger expenditures. Specifically, Table 12 suggests that training increased women's decision making on larger expenditures. Our preferred double difference regressions suggest that the impact of the training is more clear and larger at the end line. We do not find evidence that training improves women's position regarding decision making in the daily domain (see Table 13, Columns 1–3).

6.4. Possible mechanism linking access to training to women's empowerment

Our results show that offering female microfinance borrowers access to the GET Ahead training results in increased women's empowerment in terms of increased internal control beliefs, decreased relational oppression, and increased financial decision-making on larger expenditures – most notably 12 months after the training. In this section we provide several exploratory analyses to probe via which channels the training may possibly impact women's empowerment.¹⁷ Importantly, for these analyses we focus on the relational oppression index because we expect that this subscale assessing women's personal freedom may be more resistant to underreporting compared to the relational aggression items. Additionally, we focus on women's decision-making power on larger expenditures because this subscale seems to drive the overall decision-making scale. In the analyses we do not differentiate between treatment arms as little differences were observed between these conditions (see Tables 8–13).¹⁸

We examine the influence of financial and business capacity outcomes as well as the influence of gender awareness. Specifically, we considered the following variables linking the training to women's empowerment: (1) loan sizes; (2) repayment rates; (3) savings; (4) business profits; (5) business practices, and (6) gender awareness.¹⁹ Important to note, data on loan sizes, repayment rates, and savings were obtained through administrative data. Loan-sizes is the total amount borrowed from TYM at the endline; repayment rates is the total repayment of the loans at the endline; savings is the gross savings deposited at TYM at the endline. Business profits is the reported profits of women's three main nonfarm and farming activities using the inverse hyperbolic sine transformation to deal with zeros at the endline (see also Bulte, Lensink, & Vu, 2017). Business practices is the reported general business practices at the endline (5 items; e.g., Do you re-invest profits for growth or continuity of your business?; see Table 14 for items); gender awareness is women's perspective on women's position as entrepreneurs at the endline (4 items; e.g., Only men can launch a new business, see Table 15 for items).

¹⁶ We prefer the double difference regressions as they better control for remaining selection effects than the post-treatment regressions.

¹⁷ We thank an anonymous reviewer for suggesting several mechanisms that could explain our findings.

¹⁸ We examined these potential mechanisms at the end line because most observed findings only materialized at this time period.

¹⁹ All these results report the findings of analyses conducted with control variables (age, education, lending branches), which did not differ from the results obtained through analyses without control variables. These latter results are available on request.

The first part of our analysis consists of conducting simple post treatment regressions regressing a set of potential variables which may be affected by the training. These regressions show that training did not impact loan sizes, repayment rates, or savings (see Table 16, Columns 1, 2, 3). However, training did increase women's business profits, business practices (see also Bulte et al., 2017), and gender awareness (see Table 16, Column 4, 5, 6).

We regressed business profits, business practices, and gender awareness on training at the midline and the endline (see Table 17) to gauge a possible order in these effects. It turns out that business profits are not significantly affected by the training at midline, while both business practices and gender awareness are already affected at the midline. These results suggest that business profits do not drive results on gender awareness and, as expected, on business practices. Importantly, this is an indication that the mechanism linking training to the observed empowerment results is not through business profits. However, as access to the training does affect business practices at midline already it is possible that empowerment effects are driven by business practices.

To further assess the relevance of the training-business practices and/or training-gender awareness channel, for explaining changes in women empowerment, we present post-treatment end-line regressions linking women's empowerment to the GET Ahead training, controlling for business practices or gender awareness. Table 18 shows that the training dummy remains significant if business practices are added to the model, while the training dummy becomes insignificant if the gender awareness indicator is added to the model. Additionally, the table shows that the training coefficient is hardly affected if the business practices indicator is added, while the training coefficient is substantially affected when the gender awareness dummy is added. This seems to suggest that the gender awareness channel is more important than the business practices channel for explaining the impact of training on internal control beliefs, relational oppression, and financial decision-making on larger expenditures. However, we admit that alternative explanations are possible and stress that the analyses cannot demonstrate a causal connection between gender awareness and women's empowerment.

Finally, it may be relevant to try to provide some suggestive evidence on which components of the training caused the observed findings. Unfortunately, our design does not enable us to probe differential impacts of the gender- or business-components of the training. Nonetheless, if we assume that it is likely that the business components of the training mainly impact women's empowerment via business practices, and that the gender components of the training mainly impact women's empowerment via gender awareness, the analysis suggests that probably the gender part plays the most important role. However, we emphasize that much more research is needed to provide an unambiguous answer to this question. Thus, the analyses reported in this paragraph can only offer a first speculative insight in a possible mechanism driving our effects.

7. Discussion and conclusion

The current study shows that providing female borrowers access to the GET Ahead training improves important aspects of women's personal and relational empowerment. Most importantly, our results show that access to the GET Ahead training increased female borrowers' control beliefs as well as decision making on larger expenditures. In line with previous research training did not impact women's decision making power with respect to decisions in the daily domain. In general, women are traditionally in charge of small expenditure decision-making (e.g., Johnson, 2016; Mishra & Abdoul, 2016), thus we may have encountered a ceiling effect.

Table 14

Business practices scale.

Records sales, withdrawals, or payments to workers
Discuss with anyone about how to improve activity
Diversify and improves quality in the last 6 months
Makes sales on credit
Reinvest profits for growth or continuity business

Table 15

Gender awareness scale.

Men and women should have equal opportunities in enterprise development
Only men can launch a new business
Only women are responsible for the housework and children
Boys should have more chances to access to education and training than girls

Our study also suggests that the training reduces relational frictions. However, there are reasons to interpret this result with some care. Our survey-based relational friction index may suffer from underreporting, as some of the items in the index refer to sensitive topics.

Important to note, our data does not provide much evidence for an additional effect of inviting husbands to training. Thus, we do not find that inviting husbands will lead to additional positive

effects of the training on women's empowerment (i.e., relational oppression). However, the low training uptake by husbands in the joint training condition may have resulted in power problems inhibiting us to pick up small effects of inviting husbands (for similar power issues see Banerjee, Karlan, & Zinman, 2015). Thus, future research is needed to assess the relevance of inviting husbands.

Interestingly, our research suggests that the empowerment effects appear to accumulate over time, resulting in more pronounced impacts in the end line rather than the midline, for almost all indicators and methods used. We provide some suggestive reasons for this delay in empowerment. First, it may take some time before newly acquired business skills can be implemented and result in improved business capacity outcomes, which can subsequently result in increased empowerment. Indeed, Bulte et al. (2017) report that providing female microfinance borrowers access to the GET Ahead training resulted in more pronounced economic impacts in the medium rather than the short run. However, our exploratory analyses suggest that the observed empowerment impacts of the GET Ahead training are not driven solely by business capacity. Second, it may take time before women learn to implement newly acquired gender beliefs that can subsequently result in increased empowerment. Also, previous research showed that women must first realize that they have a capacity for action before they can work towards social change (Hansen, 2015).

Table 16

Impact of training on variables assessing the mechanisms at endline.

	Loan sizes (1)	Repayment rates (2)	Savings (3)	Profits (4)	Business practices (5)	Gender awareness (6)
Training	-12.57 ⁺⁴ (4.71 ⁺⁵)	-5.71 ⁻⁴ (0.20 ⁻²)	9.67 ⁺⁴ (1.86 ⁺⁵)	2.04 ^{***} (0.48)	1.85 ^{***} (0.11)	1.04 ^{***} (0.12)
Constant	2.52 ^{+7***} (0.12 ⁺⁷)	0.64 ⁻² (0.00)	5.25 ⁺⁵ (0.51 ⁺⁵)	4.24 ^{***} (0.94)	0.26 (0.19)	2.17 ^{***} (0.19)
N	2366	2366	2364	3414	3390	3414
R ²	0.0336	0.001	0.016	0.061	0.435	0.283

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. The data for loan sizes, repayment rates, and savings was obtained through an administrative dataset. ^{*}*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

Table 17

Impact of training on business profits, business practices, gender awareness at midline and endline.

Variables	Midline			Endline		
	Business profits (1)	Business practices (2)	Gender awareness (3)	Business profits (4)	Business practices (5)	Gender awareness (6)
Treatment	0.33 (0.441)	1.29 ^{***} (0.114)	1.05 ^{***} (0.098)	2.04 ^{***} (0.48)	1.85 ^{***} (0.11)	1.04 ^{***} (0.12)
Constant	6.13 ^{***} (0.940)	1.62 ^{***} (0.227)	1.97 ^{***} (0.154)	4.24 ^{***} (0.94)	0.26 (0.19)	2.17 ^{***} (0.19)
N	3420	3429	3440	3414	3390	3414
R ²	0.050	0.271	0.268	0.061	0.435	0.283

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. ^{*}*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

Table 18

Impact of training on women's empowerment controlling for impacts via business profits or gender awareness.

	Control beliefs			Relational oppression			Large expenditure decision-making		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Training	0.22 ^{**} (0.08)	0.20 ^{**} (0.09)	0.13 (0.08)	-0.12 ^{***} (0.03)	-0.08 ^{**} (0.04)	-0.05 [*] (0.03)	0.27 [*] (0.11)	0.30 ^{***} (0.10)	0.13 (0.04)
Business practices		0.02 (0.03)				-0.01 (0.01)			-0.02 (0.04)
Gender awareness			0.09 ^{**} (0.03)						0.13 ^{**} (0.04)
Constant	2.44 ^{***} (0.12)	2.43 ^{***} (0.12)	2.24 ^{***} (0.14)	0.51 ^{***} (0.06)	0.41 ^{***} (0.07)	0.50 ^{***} (0.07)	2.66 ^{***} (0.21)	2.64 ^{***} (0.21)	2.37 ^{***} (0.24)
N	3325	3307	3325	3070	3073	3095	3396	3374	3396
R ²	0.143	0.142	0.155	0.261	0.162	0.184	0.041	0.041	0.048

Notes. Standard errors are in parentheses, adjusted for clustering at the centre level. ^{*}*p* < .10. ^{**}*p* < .05. ^{***}*p* < .01.

Similarly, political scientists argue that “women first need to change themselves before they can hope to change society” (Inglehart & Norris, 2003, p. 9). Indeed, research has stressed that women’s empowerment is a process and should thus not be expected to change within a short timespan (e.g., Kabeer, 1999; Malhotra et al., 2002). Important to note, the end line results only show medium-term changes twelve months after the last training session. Future research should monitor longer time horizons to test the sustainability of these first effects.

Our exploratory analyses suggest that the observed findings may be more likely to be driven, at least partly, by women’s increased gender awareness and not solely by their increased business capacity. It is however important to note that the GET Ahead training offers essential entrepreneurial skills, just from a gendered perspective to highlight both business development and gender relations in conjunction (Bauer et al., 2004). Our results seem to support the suggestion that a training tailored to the needs and experiences of women may have stronger impacts for female entrepreneurs than offering a general business training (e.g., Berge et al., 2014). The examined gender awareness pathway suggests that women may become more aware of existing gender roles as well as opportunities for them to take up new roles and to strengthen their position, which subsequently related to more empowerment. However, these analyses only offer a first speculative insight into a possible mechanism driving our observed findings possibly influenced by selection bias and endogeneity. Thus, the suggested pathway should be interpreted with care. Importantly, women’s gender roles were discussed in conjunction with teaching female entrepreneurs’ business skills. Thus, in the current research we can’t differentiate the impacts of the gender versus the business training components. We invite future research to rigorously contrast the impact of the GET Ahead training with a gender-only or business-only focused training program to better understand the mechanisms through which women’s empowerment (and perhaps also business outcomes) develops. Nonetheless, we suggest that relevant stakeholders aiming to strengthen women’s

position in society through business training should consider the potentially promising contribution of adding a gendered perspective to these trainings.

In comparison to other studies we find rather positive effects of training on women’s empowerment. While we do not know the precise reasons, it is important to emphasize that the context of our study differs from other comparable studies. Most importantly, we examine impacts of a training offered to women who are members of a microfinance organisation, and hence probably do not suffer from credit constraints. Additionally, it may well be that the joint offering of credit and human capital (via the training) explains the positive results. Similarly, previous research contrasting the impact of a gender- and health focused training, with microcredit, and with both microcredit and the training, reports that female microfinance borrowers who received access to credit and an additional gender- and health training improved across all domains of women’s empowerment compared to women who only received a loan or who received neither a loan nor training (Kim et al., 2009). Future research should examine the mechanism more systematically by for example comparing the additive impact of the GET Ahead training and microcredit on women’s empowerment.

Acknowledgments

The authors thank the International Initiative for Impact Evaluation (3ie) and the Global Development Network (GDN) for providing funds for this research [code OW3/1132]. We thank TYM for its collaboration in organizing and conducting this research. Finally, we would like to thank all female microfinance borrowers and their husbands who participated in this research.

Appendix Additional Analyses

Tables A1–A3

Table A1

Results on midline post-treatment regression, using with the consistent sample for the double difference analyses.

Variables	(1) Controlbeliefs	(2) Controlbeliefs DD sample	(3) Rel. friction	(4) Rel. friction DD sample	(5) Rel. oppression	(6) Rel. oppression DD sample	(7) Overall dec.	(8) Overall dec. DD sample	(9) Large dec.	(10) Large dec. DD sample	(11) Small dec.	(12) Small dec. DD sample
year2T1	0.06 (0.09)	0.05 (0.09)	0.00 (0.02)	0.00 (0.02)	0.02 (0.02)	0.03 (0.03)	0.21 [*] (0.11)	0.27 ^{**} (0.11)	0.13 (0.08)	0.16 [*] (0.08)	0.08 (0.06)	0.11 [*] (0.06)
year2T2	0.11 (0.12)	0.10 (0.11)	−0.03 (0.02)	−0.03 (0.02)	−0.02 (0.02)	−0.02 (0.03)	0.00 (0.17)	−0.03 (0.16)	−0.05 (0.12)	−0.13 (0.11)	0.06 (0.09)	0.09 (0.10)
Age base	0.00 (0.02 ^{−1})	0.00 (0.00)	−0.00 ^{***} (0.00)	−0.00 ^{***} (0.00)	−0.00 ^{***} (0.00)	−0.00 ^{**} (0.00)	0.02 ^{***} (0.00)	0.01 [*] (0.00)	0.02 ^{***} (0.00)	0.01 ^{***} (0.00)	−0.00 (0.00)	−0.00 (0.00)
Edu base	0.02 (0.03)	0.02 (0.04)	−0.02 ^{***} (0.01)	−0.02 ^{***} (0.01)	−0.01 [*] (0.00)	−0.01 (0.01)	−0.04 (0.06)	−0.11 [*] (0.06)	0.01 (0.05)	−0.05 (0.05)	−0.05 ^{**} (0.02)	−0.05 ^{***} (0.02)
branch1	0.26 ^{**} (0.12)	0.26 ^{**} (0.12)	−0.09 ^{***} (0.02)	−0.08 ^{***} (0.02)	−0.09 ^{***} (0.02)	−0.09 ^{***} (0.02)	0.67 ^{***} (0.17)	0.53 ^{***} (0.17)	0.39 ^{***} (0.11)	0.30 ^{***} (0.11)	0.28 ^{***} (0.09)	0.22 ^{***} (0.10)
branch2	−0.02 (0.09)	−0.00 (0.10)	−0.03 (0.03)	−0.00 (0.04)	0.00 (0.03)	0.04 (0.04)	0.33 ^{**} (0.16)	0.30 [*] (0.15)	0.22 ^{**} (0.10)	0.13 (0.09)	0.12 (0.10)	0.17 [*] (0.10)
branch3	−0.10 (0.09)	−0.06 (0.09)	−0.08 ^{***} (0.02)	−0.08 ^{***} (0.02)	−0.08 ^{***} (0.02)	−0.08 ^{***} (0.02)	1.13 ^{***} (0.15)	0.94 ^{***} (0.15)	0.64 ^{***} (0.10)	0.42 ^{***} (0.09)	0.49 ^{***} (0.10)	0.52 ^{***} (0.10)
Constant	1.80 ^{**} (0.12)	1.84 ^{**} (0.14)	0.28 ^{**} (0.03)	0.27 ^{***} (0.04)	0.17 ^{***} (0.03)	0.18 ^{***} (0.04)	5.33 ^{***} (0.26)	5.88 ^{***} (0.23)	2.93 ^{***} (0.19)	3.47 ^{***} (0.17)	2.40 ^{**} (0.12)	2.40 ^{**} (0.13)
N	3386	2406	3369	2406	3371	2406	3318	2406	3321	2406	3416	2406
R ²	0.035	0.030	0.062	0.065	0.062	0.074	0.068	0.065	0.047	0.033	0.088	0.109

Notes. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A2
Double difference specification including fixed effects at the individual level.

Variables	(1) DD Control beliefs	(2) FE Control beliefs	(3) DD Rel. Friction	(4) FE Rel. Friction	(5) DD Rel. Oppression	(6) FE Rel. Oppression	(7) DD Overall dec.	(8) FE Overall dec.	(9) DD Large dec.	(10) FE Large dec.	(11) DD Small dec.	(12) FE Small dec.
T1	-0.09 (0.07)		0.02 (0.02)		0.03 (0.03)		0.02 (0.14)		-0.03 (0.09)		0.06 (0.07)	
T2	-0.14 (0.10)		0.06** (0.03)		0.09** (0.04)		-0.16 (0.17)		-0.19 (0.13)		0.03 (0.09)	
new_year2	0.11 (0.07)	0.11 (0.07)	-0.01 (0.02)	-0.01 (0.02)	-0.00 (0.02)	-0.00 (0.02)	-0.12 (0.13)	-0.12 (0.13)	-0.17** (0.08)	-0.17** (0.08)	0.06 (0.06)	0.06 (0.06)
year2T1	0.15 (0.10)	0.15 (0.10)	-0.02 (0.03)	-0.02 (0.03)	-0.01 (0.04)	-0.01 (0.04)	0.27 (0.17)	0.27 (0.17)	0.20 [†] (0.11)	0.20 [†] (0.11)	0.06 (0.09)	0.06 (0.09)
year2T2	0.26** (0.12)	0.26** (0.12)	-0.10** (0.04)	-0.10** (0.04)	-0.10* (0.05)	-0.10* (0.05)	0.09 (0.24)	0.09 (0.24)	0.05 (0.16)	0.05 (0.16)	0.04 (0.11)	0.04 (0.11)
new_year3	0.11 (0.08)	0.11 (0.08)	0.13*** (0.03)	0.13*** (0.03)	0.14*** (0.04)	0.14*** (0.04)	-0.54*** (0.15)	-0.54*** (0.15)	-0.50*** (0.11)	-0.50*** (0.11)	-0.03 (0.07)	-0.03 (0.07)
year3T1	0.30*** (0.12)	0.30*** (0.12)	-0.17*** (0.04)	-0.17*** (0.04)	-0.16*** (0.05)	-0.16*** (0.05)	0.39** (0.19)	0.39** (0.19)	0.40*** (0.13)	0.40*** (0.13)	-0.01 (0.10)	-0.01 (0.10)
year3T2	0.52*** (0.14)	0.52*** (0.14)	-0.16*** (0.06)	-0.16*** (0.06)	-0.17*** (0.07)	-0.17*** (0.07)	0.26 (0.22)	0.26 (0.22)	0.33 [†] (0.17)	0.33 [†] (0.17)	-0.07 (0.11)	-0.07 (0.11)
Constant	1.90*** (0.05)	1.84*** (0.03)	0.13*** (0.01)	0.14*** (0.01)	0.06*** (0.02)	0.09*** (0.01)	6.54*** (0.09)	6.52*** (0.05)	4.09*** (0.06)	4.05*** (0.03)	2.45*** (0.05)	2.47*** (0.03)
N	7218	7218	7218	7218	7218	7218	7218	7218	7218	7218	7218	7218
R ²	0.037	0.059	0.044	0.065	0.036	0.054	0.019	0.028	0.020	0.032	0.011	0.017
# of hhcode		2406		2406		2406		2406		2406		2406

Notes. Robust standard errors in parentheses. ****p* < 0.01, ***p* < 0.05, **p* < 0.1

Table A3
Attrition analyses for midline-, endline-, and double difference-sample.

	Midline Regression sample (1)	Endline Regression sample (2)	Double difference Regression sample (3)
T1	0.00 (0.09)	-0.00 (0.09)	0.02 (0.11)
T2	0.08 (0.18)	0.08 (0.18)	0.06 (0.20)
Age	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Control beliefs baseline	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Relational violence baseline	0.02 (0.06)	0.03 (0.06)	0.02 (0.06)
Relational oppression baseline	-0.01 (0.06)	0.00 (0.06)	-0.00 (0.06)
Large expenditures baseline	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)
Daily domain expenditures baseline	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Age*T1	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Age*T2	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Control beliefs baseline*T1	0.00 (0.02)	0.00 (0.02)	-0.00 (0.02)
Control beliefs baseline*T2	0.04 (0.03)	0.04 (0.03)	0.05 (0.03)
Rel. violence baseline*T1	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)
Rel. violence baseline*T2	0.01 (0.07)	0.00 (0.07)	-0.03 (0.08)
Rel. oppression baseline*T1	0.00 (0.07)	-0.01 (0.07)	-0.01 (0.07)
Rel. oppression baseline*T2	0.06 (0.10)	0.05 (0.10)	0.05 (0.11)
Large expend. baseline*T1	0.00 (0.01)	0.01 (0.01)	0.00 (0.02)
Large expend. baseline*T2	0.02 (0.02)	0.02 (0.02)	0.03 (0.02)
Daily expend. baseline*T1	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)
Daily expend. baseline*T2	-0.09* (0.05)	-0.10* (0.05)	-0.10* (0.056)

(continued on next page)

Table A3 (continued)

	Midline Regression sample	Endline Regression sample	Double difference Regression sample
Constant	0.18*** (0.06)	0.18*** (0.06)	0.05 (0.08)
N	3218	3167	2780
R ²	0.015	0.016	0.019

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