

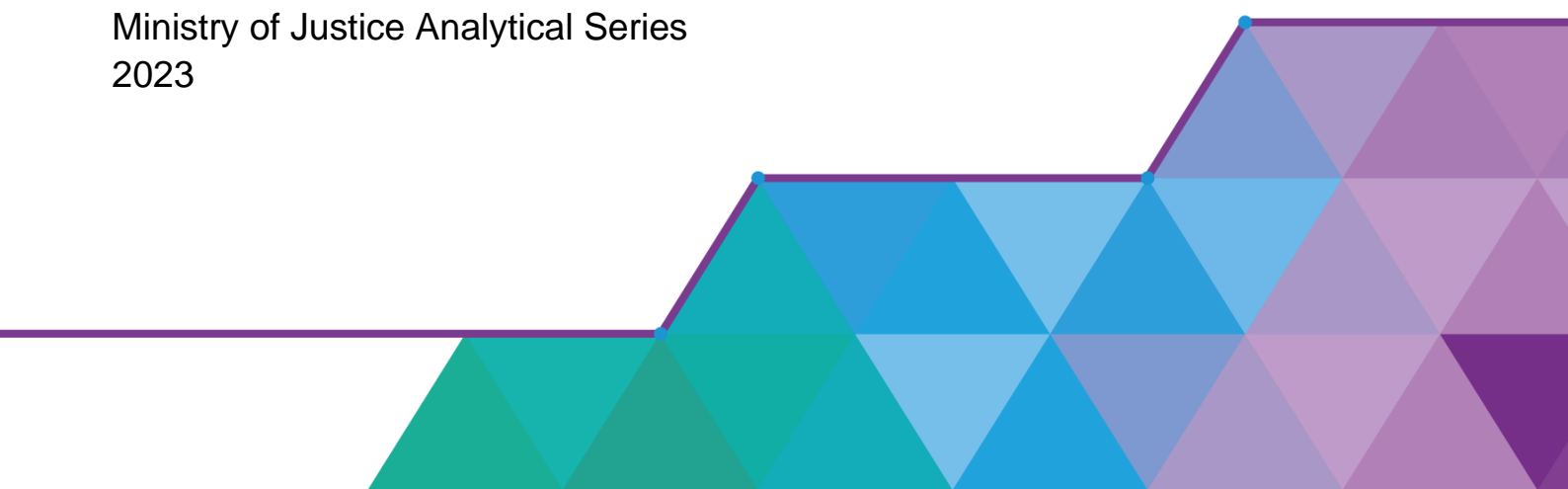


HM Prison &  
Probation Service

# The Healthy Identity Intervention (HII) – Findings from an interim outcome evaluation

Carys Keane, Victoria Parkinson, Chloe Dower, and Ian Elliott

Ministry of Justice Analytical Series  
2023



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First published 2023



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ISBN 978-1-84099-983-9

## Acknowledgements

The authors would like to thank the participants of the qualitative Interpretive Phenomenological Analysis (IPA) study, who volunteered their time and stories regarding their experiences of the Healthy Identity Intervention.

Thank you too, to Lauren Brett and Kris Simpson from the His Majesty's Prison and Probation Service (HMPPS) Counter Terrorism Assessment and Rehabilitation (CT-ARC) Research Team. Without their support, this publication would not have been possible.

Many thanks to Dr Adam Carter, Andrea Jackson, Hannah Thompson, Liz Curwen, Sarah Copp from HMPPS, Alana Diamond from Ministry of Justice (MOJ) Data and Analysis, and Jess Kelly from Home Office for your ongoing oversight and support. Thanks also to Dr Shola Apena Rogers; from the University of Birmingham and Professor Paul Gill from University College London for your continuing supervision, expertise and support, you have made this research, and publication possible.

Finally, a big thank you to my colleagues who helped in the completion of particularly the quantitative study, to Wendy Smith-Yau from MOJ Data and Analysis, Sanjeeta Abram and Julia Reid from Home Office, your support in coding, and also to busy colleagues in the field; Helen Bean, Michael Smith, and Elizabeth Geal amongst many others who helped with data sourcing.

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# Glossary

<b>Term</b>	<b>Description</b>
Actuarial and Structured Professional Judgement (SPJ) Assessments	There are two main approaches to reaching decisions about risk: discretionary and non-discretionary approaches. The discretionary approach is one where the assessor exercises professional judgment in the decision-making process. SPJ is a discretionary approach that involves the application of structured clinical guidelines as a way of positioning practice to the available research and evidence (Logan & Lloyd, 2018). In contrast, the non-discretionary approach, which includes actuarial risk assessments predicts certain outcomes over certain timeframes in certain populations. Decisions about risk are made according to fixed and explicit rules, established mainly on explicit empirical evidence (Hart et al., 2016).
Accredited Offending Behaviour Programmes	Accredited OBPs are those interventions accredited by the Correctional Services Accreditation and Advice Panel (CSAAP), a panel of independent experts in the field of correctional assessment and treatment. Programme accreditation means the expert panel is satisfied that the programme is informed by the international evidence base and is congruent with what we know about effective working with offenders to promote behavioural change, e.g., international What Works? Literature.
Desistance	Desistance refers to the process that leads to the cessation of offending stemming from an unwillingness to act illegally or harm others on behalf of an extremist group, cause, or ideology. Disengagement refers to the process by which an individual chooses to end, limit or change their relationship with a group, cause or ideology.
Extremism	HMPPS Counter Terrorism Assessment and Rehabilitation Centre (CT- ARC) defines extremism as 'any offence committed in association with a group, cause and/or ideology that propagates extremist views and actions and justifies the commission of offences and/or the use of violence in pursuit of its objectives' (NOMS, 2011).
Extremism Behavioural Indicator (EBI) Measure	The EBI Measure (Keane et al., 2022b) is a rating-scale measure designed for the purposes of this evaluation. The EBI Measure is made up of 23 behavioural indicators of engagement and involvement in extremism, and 20 behavioural indicators of desistance and disengagement from extremism.
Extremism Risk Guidance 22+ (ERG22+)	The ERG22+ is a structured professional judgement (SPJ) framework that uses a formulation approach to assess risk and need of individuals convicted of terrorism and terrorism-connected offences.
Facilitator	The HII is a one-to-one accredited offending behaviour programme (OBP) that is facilitated by specially trained registered forensic psychologists and qualified probation officers. The facilitator refers to those specially trained practitioners who deliver the HII.



<b>Term</b>	<b>Description</b>
Good Lives Model	The Good Lives Model (GLM) (Ward & Stewart, 2003) is a strengths-based rehabilitation theory that focuses on assisting individuals develop and implement meaningful life plans that are incompatible with future offending.
In-group vs Out-group	Social identity theory posits that humans tend to divide the world into “us” (the in-group) and “them” (the out-group), creating a social identity based on group membership (Tajfel & Turner, 1979). An in-group is a group of people who share perceived similarities, which may include race, gender, religion, geography, ideology, interests etc. The out-group is a group of people who are considered different from the in-group.
Offender Assessment System (OASys)	The OASys is an assessment framework used with all adult offenders upon conviction. It is used to assess risks and needs (by combining actuarial and SPJ assessment approaches) in support of individualised sentence and risk management plans.
Offender Behaviour Programmes (OBPs)	Offender behaviour programmes are interventions that aim to change the thinking, attitudes and behaviours which may lead individuals to reoffend.
Inductive Thematic Analysis	Inductive Thematic analysis (Braun & Clarke, 2006) is a technique used to identify, analyse and interpret patterns or themes within data. It involves a ‘process of coding the data without trying to fit it into a pre-existing coding frame or the researcher’s analytic preconceptions’. In this sense, this form of thematic analysis is data driven’ (Lorelli et al., 2017).
Interpretative Phenomenological Analysis (IPA)	IPA is a qualitative research method focused on understanding the lived experience of a specified phenomenon. As a methodology rather than simply a means of analysing data, IPA involves the detailed examination of participants’ ‘lifeworlds’; their experiences of a particular phenomenon, how they make sense of these experiences and the meanings they attach to them (Smith et al., 2004).
Risk-Need-Responsivity Principles (RNR)	The RNR (Andrews & Bonta, 2010) principles highlight that treatment should be tailored to risk level, should target predictively meaningful criminogenic needs, and should be designed to reflect relevant characteristics of the target group.
Terrorism and terrorism-connected offences	Terrorism offences are those offences where the individual has been convicted under terrorism legislation. Terrorism-connected offences are those where the individual has been convicted under other legislation (e.g., for murder) but a link to terrorism has been explicitly noted by the Judge in their sentencing remarks.

# 1. Summary

## 1.1 Introduction and Study Aims

The Healthy Identity Intervention (HII) is a His Majesty's Prison and Probation Service (HMPPS) accredited offending behaviour programme (OBP) designed to address the psychological and social (i.e., psychosocial) factors impacting individual engagement and involvement in extremism. To support HMPPS' commitment to reduce re-offending and protect the public, the Counter Terrorism Assessment and Rehabilitation Centre (CT-ARC) lead work to develop and evaluate OBPs designed for individuals convicted of terrorist or terrorist connected offences. The three studies conducted as part of this evaluation aimed to:

- Explore the short-term outcomes associated with completing the HII on various indicators of change over time, for individuals convicted of terrorism and terrorism-connected offences,
- Explore what psychosocial factors are being affected (if any) as a result of participation in the programme, and finally,
- Shed light on individual pathways out of extremism, to inform the evidence base, and provide recommendations to inform the further development and refinement of HII.

The analysis presented in this paper outlines findings relating to how the HII supports individuals convicted of terrorism and terrorism-connected offences, progress towards desistance and disengagement from extremism.

## 1.2 Methodological approach and Interpreting Findings

A short-term outcome evaluation of the HII was undertaken between 2017 and 2020. It included three studies conducted by three researchers at different time points:

- Quantitative research, using a pre-post intervention design. Secondary data analysis was conducted to quantify any indications of change as a result of participation in the HII for a sample of 70 individuals convicted of terrorism or terrorism-connected offences.
- Qualitative research, specifically:

- Interpretative Phenomenological Analysis (IPA) of three individuals' experiences of the HII; and,
- Inductive Thematic Analysis of a sample of 30 post-HII intervention reports to examine reported progress indicators for desistance or disengagement.

There are several limitations to this evaluation, including a relatively small population from which to draw the samples, no control group meaning any change cannot be directly attributed to HII, and the potential for methodological biases. These biases are likely to include sampling biases resulting from generalising from smaller samples to larger populations, channelling biases from sampling convicted individuals as opposed to wider extremist populations, and selection biases resulting from participant differences in willingness to engage. Limitations were considered in analysis and interpretation of findings, and where possible, mitigated. Given the methodological limitations, findings must be viewed as indicative.

### 1.3 Key findings

The results of the quantitative pre- and post- HII measures analysis indicate that positive change was demonstrated as a result of participation in the HII. In two of the three measures used to explore these changes, there was statistically significant positive pre-to-post change.

- Extremism Risk Guidance 22+ (ERG22+) ratings were significantly lower post-HII ERG22+ than pre-HII ERG22+ across the Engagement and Intent dimensions.
- The Extremism Behavioural Indicator (EBI) Measure found significant positive pre-to-post changes to *intent* and *skills domain*. No significant pre-to-post changes were found to *disillusionment* and *identity domains*.
- The actuarial elements of the Offender Assessment System (OASys) found no statistically significant pre-to-post results.

Qualitative findings from the IPA study relate to four themes.

- Positive changes: from initial anxiety to positive feelings of accomplishment at intervention completion. Learning and developing skills was key to positive change.
- Re-defining personal identity: increased understanding of their personal identity, development of prosocial aspects of individual identity and positive future priorities for their lives.
- Practical factors: relationship with the facilitator is important (i.e., therapeutic alliance), personal assignments are viewed as beneficial to reflection, re-examination and consolidation of in-session work, and post intervention reports that provide clear objectives are viewed positively by the participants.
- Future hopes: family and career were viewed as having increasing importance to participants in forging new pro-social goals, but also individual concerns about community resettlement and their need for support with reintegration.

Qualitative findings from the thematic analysis relate to three key areas: disillusionment, social networks and identity.

- In 29 of the sampled 30 post-intervention reports, progress following completion of HII was recorded. This included repeated observations of disillusionment with continued involvement in extremism, positive changes in social network and identity.
- The majority of themes were shared across the Islamist-influenced and other extremist groups in the sample except for loss of position (politically motivated groups), not wanting to be viewed negatively (Islamist-influenced extremists) and internal conflict (Islamist-influenced extremists).
- Compared to the other groups (politically motivated and single-issue motivated extremism), the Islamist-influenced extremist group reported themes of not wanting to be viewed negatively by others. Non-judgemental exposure to out-groups (including staff) is understood to have contributed to their disengagement. Recognition of similarities with these out-groups can lead to further questioning of the in-group's opinions of other (out) groups.

- Gender differences were observed regarding themes of identity. During the HII completion, women (N=5) said they recognised women’s rights and wanted to enjoy freedoms not previously permitted as a result of cultural and gender expectations and restrictions. This appeared to have played an important role in their severing links with people that had been identified as coercing them into committing to an extremist group, cause or ideology. Males included in the evaluation placed less emphasis on the role of relationships and more emphasis on preventing past behaviour from defining them.

## 1.4 Conclusion

Taken together, the findings from the three separate studies provide initial evidence that suggests that the HII does appear to address some of the psychosocial factors impacting engagement and involvement in an extremist group, cause or ideology. Keeping in mind the limitations to the evaluation, the findings point to the HII supporting individuals to make positive changes that may contribute to their desistance and disengagement from extremism. As such, the HII may play an important role in reducing reoffending and protecting the public and should, where appropriate, be offered as part of a wider package of rehabilitative activities to individuals convicted of terrorism and terrorism-connected offences.

The studies indicate that the HII could be further developed to better attend to some factors relevant to individual desistance and disengagement from extremism. For example, consideration should be given to restructuring the HII; retaining the core modules but tailoring additional optional modules that more closely align to individual progress towards desistance and disengagement. For those who have demonstrated little or no disillusionment prior to starting the intervention, the HII delivery could focus on developing dissonance between an individual’s personal identity and their social identity associated with an extremist group or cause. For someone already exhibiting significant progress, as evidenced by their reported disillusionment with continued involvement in extremism, the focus could be skill development and reintegration. Adapting sessions from more widely used offending behaviour programmes may be an option.

With more time and greater numbers of terrorist offenders having made their way through the criminal justice system, replicating the studies conducted as part of this evaluation and considering the feasibility of further evaluation is warranted.

## 2. Introduction

### 2.1 Policy Context

Since 2019, the UK has experienced several notable attacks in which people lost their lives. The incidents at Fishmonger's Hall in London in 2019<sup>1</sup> and in Forbury Garden in Reading in 2020<sup>2</sup> are just two such incidents that had considerable adverse consequences.

In England and Wales, in December 2021, there were 229 individuals with terrorist and terrorist-connected convictions in prison (Home Office, 2022). In the year ending 31 December 2021, 54 individuals had been *tried* for terrorism and terrorism-connected offences in England and Wales; 50 of them convicted. In the year ending 30 September 2021, 56 prisoners serving custodial sentences for terrorism and terrorism-connected offences were released from custody, many of them subject to licenced supervision in the community (Home Office Statistics, 2022).

Given these figures, and the estimated economic impact of preventing terrorism, pursuing terrorists, and protecting citizens and interests of the UK, policy makers, practitioners and academics have an obligation to develop and evaluate effective programmes aimed at supporting desistance and disengagement from extremism, and preventing future terrorist offending.

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<sup>1</sup> On the 29<sup>th</sup> of November 2019, five people were stabbed by Usman Khan in London. Usman Khan was previously convicted of a terrorist offence and released less than a year before the attack. Two victims were fatally wounded.

<sup>2</sup> On the 20<sup>th</sup> of June 2020, six people were stabbed by Khairi Saadallah in Reading. Khairi Saadallah had also been in prison for non-terrorist related offences. He was due to be deported. Three of the men he stabbed were fatally wounded. He was arrested, pled guilty, and was sentenced to life imprisonment.

## 2.2 The Healthy Identity Intervention

The Healthy Identity Intervention (HII)<sup>3</sup> is His Majesty's Prison and Probation Service (HMPPS) accredited<sup>4</sup> one-to-one programme aimed at addressing the psychosocial factors influencing individual engagement and involvement in extremism. It is a voluntary programme delivered to adults in custody, or on licence in the community (i.e., probation) by specially trained, registered psychologists and qualified probation officers. An individual convicted of terrorism or terrorism-connected offences is eligible for the intervention; however, the programme is only recommended where specific psychosocial factors and circumstances<sup>5</sup> which contributed to their involvement in extremism and offending can potentially be addressed through its completion. The HII is not ideologically focused or intended to re-educate a set of beliefs or doctrine. Rather, it aims to encourage individuals to reassess those beliefs and values that justified and supported terrorism and support them to re-examine the commitments they made to an extremist group or cause (HMPPS, 2018).

Rehabilitative programmes addressing why individuals have engaged in extremism, and offended on behalf of an extremist group, cause or ideology is a relatively new area within correctional rehabilitation. Given that some of what the programme seeks to do overlaps with other accredited offending behaviour programmes (OBPs), the HII has been built upon established correctional rehabilitative approaches (e.g., Risk-Need-Responsivity principles (RNR) (Andrews & Bonta, 2010),<sup>6</sup> the Good Lives Model (GLM) (Ward & Stewart, 2003),<sup>7</sup> and identity-focused desistance literature

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<sup>3</sup> The HII is distinct from the Desistance and Disengagement Programme (DDP), which is a Home Office led programme. Individuals eligible to complete HII are often eligible to participate in the DDP.

<sup>4</sup> In 2018, the HII was accredited by the Correctional Services Accreditation and Advice Panel (CSAAP), a panel of independent experts in the field of correctional assessment and treatment. Programme accreditation means the expert panel is satisfied that the programme is informed by the international evidence base and is congruent with what we know about effective working with offenders to promote behavioural change, e.g., international What Works? Literature.

<sup>5</sup> Psychosocial factors and circumstances identified as part of the ERG22+ assessment e.g., need for status, need to redress injustice, need for identity, meaning and belonging etc.

<sup>6</sup> RNR (Andrews & Bonta, 2010) highlights that treatment should be tailored to risk level, should target predictively meaningful criminogenic needs, and should be designed to reflect relevant characteristics of the target group.

<sup>7</sup> The Good Lives Model (GLM) (Ward & Stewart, 2003) is a strengths-based rehabilitation theory that focuses on assisting individuals develop and implement meaningful life plans that are incompatible with future offending.



(Maruna, 2001),<sup>8</sup> whilst drawing upon wider theories and methods (Dean, 2014), including theories of engagement (McCauley & Moskalenko, 2008; Moghaddam, 2005), and the push and pull framework for both engagement and disengagement (Bjorgo, 2009; Borum, 2011; Horgan, 2009b; NOMS, 2011).

The HII seeks to support and facilitate individuals in:

- fulfilling their identity and other fundamental human needs<sup>9</sup> legitimately;
- reducing their offence-supportive attitudes, beliefs and thinking;
- increasing their personal agency;
- increasing their emotional tolerance and acceptance; and
- expressing their values and pursuing their goals legitimately.

The HII does this in a number of ways, including:

- addressing personal motives for becoming involved (or maintaining involvement) in extremism, based on the assumption that changes to these may reduce interest and continued involvement in extremism;
- creating and/or consolidating disillusionment and dissatisfaction about the participant's involvement in extremism, and their offending;
- coaching and empowering individuals to engage and identify with alternative values, groups, interests, and relationships, which may serve as an incentive for disengagement from extremism;
- reconnecting individuals with their own personal values, beliefs, and goals (i.e., personal identity), rather than remaining identified and overly influenced by those of the group or cause (i.e., shared extremist identity);
- coaching participants to develop and apply new skills in order to avoid future engagement or identification with an extremist group, cause, or ideology;

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<sup>8</sup> Desistance theory explains the process of ceasing offending. Maruna (2001) in his research asserted that to desist, ex-offenders need to develop a pro-social identity incompatible with their former criminal identity.

<sup>9</sup> Identity needs are those needs that are central to us navigating the social world. They include the need for self-worth, the need for meaning, and the need for belonging. There are also needs, less central but equally powerful on how we think, feel and behave. Those include the need to express and pursue, and the need to preserve and protect our identity-defining values and beliefs.

- supporting individuals toward a stronger sense of personal identity and increased self-management to validate their moving on with their lives in a healthy, pro-social and crime-free way.

The intervention was initially piloted as two programmes: the Motivation and Engagement Intervention (MEI) and the HII. The MEI was developed to strengthen motivation and engagement with the intervention process, preparing individuals for the HII. A process evaluation of these interventions (Dean et al., 2018) resulted in several programme revisions, including the two being combined into the single HII programme that exists today.

In terms of the factors that influence desistance and disengagement, Keane et al. (2022a) conclude that the HII, in line with what is recommended in the literature, offers an opportunity for participants to explore identity (e.g., Chernov Hwang, 2015; Fisher-Smith et al., 2020; Horgan, 2009b), and relations (e.g., Barrelle, 2015; Fisher-Smith et al., 2020; Harris et al., 2018). Additionally, the HII aims to provide a safe space to reflect and foster dissatisfaction and disillusionment, which is also recommended in the literature (e.g., Altier et al., 2020; Dalgaard-Nielsen, 2013; Latif et al., 2019; Simi et al., 2019). The programme also acknowledges and encourages prosocial relationships, interests and activities that support desistance, disengagement, and reintegration into society (HMPPS, 2018).

## **2.3 What do we now know about Desistance and Disengagement?**

Desistance refers to the process that leads to the cessation of offending (Maruna, 2001). With reference to extremism, this stems from an unwillingness to act illegally or harm others on behalf of an extremist group, cause, or ideology (Keane, 2017). Disengagement from extremism refers to the process by which an individual chooses to end, limit or change their relationship with a group, cause or ideology (Bjorgo, 2011; Horgan, 2009a; Jacobson, 2010).

The reason(s) for individuals choosing to desist and/or disengage from extremism are wide ranging (Bryans, 2016) and may be understood as a complex interplay

between 'push' and 'pull' factors<sup>10</sup> (Altier et al., 2017). Those who leave groups and causes usually do so because the balance between push and pull factors shifts against the group and in favour of change.

Keane et al. (2022a) reported in their systematic review that the most frequently reported factors influencing desistance and disengagement were *disillusionment, role strain*,<sup>11</sup> and *changes in priorities and relationships*. *Violence and radical methods, dissatisfaction with the group, and relationships and leaders* were most often cited as being the push factors responsible for individual disillusionment. The pull factors included *changes in priorities and relationships*, both significant relationships with individuals who do not support extremism, and relationships with members of out-groups (Keane et al., 2022a).

Programmes which seek to facilitate and support desistance and disengagement efforts should focus on the most significant push factors (i.e., disillusionment and role strain); this, Altier et al. (2017) assert, may be more successful in encouraging some extremists to voluntarily desist than programmes that primarily focus on changing pull factors. The authors do however note that in some cases, pull factors were crucial, and pull factors like relationships and changing priorities do have a significant role to play in rehabilitation, re-integration into society, and in deterring future involvement in extremism.

Fisher-Smith et al. (2020) assert that their findings add a psychological and developmental layer of complexity to explanations around push and pull factors. They believe that one of the limitations of the granular focus on pushes and pulls is that the holistic attention necessary to understanding desistance and disengagement is lost. Their analysis placed the various push and pull factors within a thematically linked model in which the factors were subsumed within a period of "realignment of

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<sup>10</sup> The 'push' and 'pull' terms as we know them originated from Aho (1988) in a 'push-pull model of disengagement'. The author hypothesised that certain factors such as inadequate leadership pushes individuals out of a group, whilst other factors pull them out, (e.g., wanting to start a family). The work of Bjorgo (2009) is considered useful in conceptualising the 'push' and 'pull' factors which may contribute to individuals desisting and disengaging from extremism.

<sup>11</sup> Role strain can be broadly conceptualised as a mismatch between an individual's abilities and their assigned role (Altier et al., 2017; Altier et al., 2020)

personal and social identity” (Barrelle, 2015, p.133). The realignment of identity is contingent on the nature of the individual’s developmental psychosocial needs, which implicitly drives individuals, not only through the process of exit but also earlier, through the process of entry (Fisher-Smith et al., 2020). Other research (Chernov Hwang, 2015; Harris et al., 2018) similarly suggests that exploring individual social identity and the psychosocial aspects of extremist groups is central to desistance and disengagement.

## **2.4 Evaluating the effectiveness of Desistance and Disengagement Programmes**

Whilst there is growing evaluation research of secondary and tertiary prevention programmes<sup>12</sup> designed to support desistance and disengagement from extremism (e.g., Cherney et al., 2021; Feddes & Galucci, 2015; Marsden, 2015; Schuurman & Bakker, 2015; Webber et al., 2017), there remains limited research into the effectiveness of specific OBPs aimed at supporting change toward desistance and disengagement. With the exception of the few studies referenced here which relate to broader programmes of work, there is a distinct lack of empirical work evaluating rehabilitative programmes designed to facilitate desistance and disengagement from extremism.

There are several methodological challenges for evaluation in this field.

- Lack of a consensus on what constitutes terrorism, its causes, pathways to terrorist offending, and lack of agreement on what results in individual desistance or disengagement (El-Said, 2015; Feddes & Galucci, 2015; Gielen, 2017; Keane et al., 2022b; Webber et al., 2017).
- A lack of validated assessment measures and/or consensus on which success measures should be used to evaluate intervention efficacy (Hofman & Sutherland, 2018; Marsden, 2015; Dalgard-Nielson, 2013; Sarma, 2017).
- Relatively low numbers of individuals convicted of terrorism and terrorism-connected offences (who may sometimes be serving long custodial

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<sup>12</sup> Tertiary prevention programmes are designed to prevent re-engagement in extremism and reoffending for individuals already convicted of terrorism and terrorism-connected offences. Secondary prevention programmes are those designed to prevent individuals at risk of radicalisation, from further involvement and offending.

sentences), limited control for extraneous factors like other interventions, limited opportunity to employ an experimental design in an effort to determine whether change can be attributed to the intervention, relatively low proven reoffending rates and due to security, limited access to individuals convicted of terrorism and terrorism-connected offences for primary or secondary research (Dalgaard-Nielsen, 2013).

It is unlikely that there is a single study that will demonstrate the effectiveness of programmes designed to facilitate individual desistance and disengagement from extremism. For this reason, a number of evaluative activities are required to produce cumulative and replicable evidence of the effectiveness of programmes.

## 3. Approach

The evaluation and research strategy included three studies undertaken by different HMPPS researchers; the quantitative research completed as part of a doctoral qualification,<sup>13</sup> and the qualitative research completed by trainee forensic psychologists.<sup>14</sup>

### 3.1 Quantitative Research Strand

#### Aims and Objectives

The aim of the quantitative research was to evaluate change amongst individuals convicted of terrorism and terrorism-connected offences in England and Wales, who completed the HII whilst either in custody or on licence in the community. The study also aimed to contribute to the limited body of knowledge in this field.

#### Sample and Population Characteristics

Data was collected for 65 adult males and 5 females who had completed the HII between 2012 and 2019. The sample represented 45% of the population of those who have completed the HII,<sup>15</sup> and approximately a third of the population of those convicted of terrorism and terrorism-connected offences in England and Wales.<sup>16</sup>

Non-probability purposive sampling was employed due to the small population size, and the extent of data required to undertake a meaningful analysis. The criteria for selection being:

- completion of the HII before or during December 2019;

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<sup>13</sup> Carys Keane undertook the quantitative research study as part of a HMPPS funded doctoral degree in forensic psychology, which she completed at the University of Birmingham.

<sup>14</sup> Victoria Parkinson and Chloe Dower completed the qualitative research studies as part of the British Psychological Society's (BPS) qualification to become chartered forensic psychologists.

<sup>15</sup> To be included in the sample, the participants had to have both a pre- and post-ERG22+, a post-intervention report and have completed a full 6-month post-intervention review period by December 2019. Some individuals were excluded from the analysis as they did not meet this criteria and others were excluded as the centrally held data on them was incomplete.

<sup>16</sup> These figures date back to December 2019; the cut off point for inclusion in the study.

- being subject to both a pre-HII ERG22+ and a post-HII ERG22+;<sup>17</sup>
- having evidence relating to individual behaviour from all specified data sources.<sup>18</sup>

Sixty-seven had completed the non-accredited version of the HII and three had completed the accredited version of the programme.<sup>19</sup>

The majority of the participants at the time of their index offence were 25 to 29 years old, with a total range of between 18 and 49 years old. The HII participants that made up the sample were predominantly Islamist-influenced extremists, representing 91% of the sample. For just over half of the sample (n = 36), the HII participants had no previous convictions (and no previous criminal justice system encounters). For nearly three quarters of the participants (n = 52), their terrorism or terrorism-related conviction resulted in their first custodial experience. Appendix 4, Table 4 provides more detailed demographic breakdowns.

## Method

Data was collected for the six-month period prior, during and post HII participation to enable analysis of pre-to-post HII progress. The data relating to each individual originated from various sources including two assessments (OASys and ERG22+), as well as Her Majesty's Prison Service (HMPS) Case Management System (p-NOMIS), the prison intelligence management system (Mercury), and the National Probation Service (NPS) Case Management System (National (N) Delius). The

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<sup>17</sup> All individuals convicted of terrorism and terrorism-connected offences are subject to an initial ERG22+ upon conviction and sentence. Individuals subject to the ERG22+ are invited to participate in the assessment by way of interview, or in writing. It is best practice to complete a review ERG22+ following offence specific work like the HII. There are however cases in which the review does not take place following completion of the HII. Reasons include coming to the end of licence without time to do a review ERG22+, decisions to postpone the review ERG22+ until another intervention or further offence specific work being completed or another risk-focused report is completed, which incorporates the ERG22+.

<sup>18</sup> Having evidence from all sources ensured that there was ample comparative data to assess scores on OASys and the presence and absence of evidence, particularly for the EBI Measure indicators.

<sup>19</sup> The rationale for keeping the 3 cases in for which the accredited version was completed was that the accredited programme offering remained largely unchanged from the non-accredited version and formed the basis upon which CSAAP awarded accreditation. At the time of sampling, the decision was made to include the very small number of accredited deliveries as it was presumed that the offenders' HII experience, pre or post accreditation, would be largely the same.

coding framework included three measures: the ERG22+, the OASys<sup>20</sup> and the EBI Measure<sup>21</sup> (see Appendix 1 for a description of the EBI Measure and Appendix 3 for more information on all three measures). The ERG22+ and OASys are implemented as routine assessments for all individuals with terrorism and terrorism-connected convictions, and so scores and ratings were extracted from them. The EBI Measure was rated based on narrative data from OASys, the ERG22+, NOMIS, Mercury and N-Delius reviewed as part of the study. The narrative data gathered and analysed in this study was coded by four researchers. Inter-rater reliability checks were conducted for the EBI Measure, which found a good overall level of agreement based on the intraclass correlation coefficient (ICC; see Appendix 2 for further detail).

## Analysis

ERG22+ dimension ratings, OASys risk scores and EBI Measure scores were used to conduct a pre-post study (also referred to as an Uncontrolled Before-and-After analysis<sup>22</sup> (UBA)) to identify behavioural changes relating to individual engagement in, and desistance and disengagement from extremism as a result of participation in the HII. To subject the EBI Measure to inferential statistical analysis, items were aggregated into four domains:

- the *Intent domain* consisted of engagement items indicative of continued harmful thinking, attitudes that justify offending and a readiness or willingness to commit further offences (extremist and/or more general criminality);
- the *Disillusionment domain* included those items signifying doubt and disillusionment with continued involvement in extremism;
- the *Identity Change domain* combined items that indicated that the individual was identifying with prosocial/non-extremist aspects of their lives, signifying a movement away from extremism;

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<sup>20</sup> The OASys assessment is first completed after conviction, and then is generally reviewed annually or following significant changes in circumstances (Moore, 2015). The OASys combines actuarial methods of prediction with structure professional judgement (SPJ).

<sup>21</sup> The EBI Measure was piloted on five cases as part of the inter-rater agreement exercise (see Appendix Two), and subsequent to the pilot, minor changes were made to the measure to ensure that it captured behavioural evidence in a quantifiable and replicable way.

<sup>22</sup> A pre-post (also called before-after) research design measures outcomes in a group of participants before an intervention, and then measures outcomes after the intervention.



- the *Skills domain* aggregated items indicative of skills to mitigate against future involvement in extremism.

Each of the three analyses used ratings and scores as the dependent variables and (a) time (pre vs. post) and (b) their respective ratings and scales of interest (ERG22+ dimensions, OASys risk measures, or behavioural domains) as within-subjects predictors. The respective scales of interest were (1) the ERG22+ dimensions: engagement vs. intent vs. capability,<sup>23</sup> (2) the OASys risk scores: Offender Group Reconviction Scale 3 (OGRS3) vs. OASys Violence Predictor (OVP) vs. General reoffending Predictor (OGP),<sup>24</sup> and (3) the EBI Measure ratings: Disillusionment vs. Identity Changes vs. Intent vs. Skills (see Appendix 3 for descriptions of the 3 measures).

Multilevel regression modelling (Field, 2017) involved building a regression model<sup>25</sup> one predictor at a time, from a baseline model that included no predictors other than the intercept. Since the focus is on pre-to-post change, only models that included interactions with the ‘time’ variables (pre vs. post) were tested. The models were then compared for goodness-of-fit using analysis of variance (ANOVA) to identify the most parsimonious (see Appendix 4 for the analysis).

## Limitations

Despite the sample being a sizeable proportion of the population of HII completers (over a third), the sample size is relatively small to subject to quantitative analysis. The small numbers highlight the difficulty in obtaining the sample sizes needed to make significant headway in evaluating outcomes, impact and recidivism.

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<sup>23</sup> The engagement dimension seeks to explore an individual’s pathway into extremism, the intent dimension explores the process by which an individual overcomes inhibitions against offending and/or harming others and the capability dimension explores an individual’s capacity to cause harm, particularly serious harm and acts of terrorism (NOMS, 2011). As part of the ERG22+, assessors are asked to give an indication of overall levels of engagement, intent, and capability.

<sup>24</sup> The OGP and OVP scores predict proven reoffending at one- and two-years using age at sentence, gender, number of previous convictions, age at first conviction and current offence (Howard et al., 2006). The OGRS predictor is based on static factors only (Moore, 2015).

<sup>25</sup> The models were built using the “nlme” package, version 3.1-144, with Tukey post-hoc tests conducted using the “emmeans” package, version 1.4.6.

Another limitation is temporal change (Marsden & Torgerson, 2012). The number of individuals for whom there was evidence of desistance and disengagement prior to their initial ERG22+ completion provides evidence of temporal improvements on relevant constructs irrespective of intervention. This may mean that change and progress for the sample may, in part, be the result of natural change over time, and not necessarily attributable to participation in the HII. To mitigate this, the quantitative strand was triangulated with the qualitative strands to strengthen the evaluation.

A final limitation was that there was also no control for external factors, further confounding any change being directly attributable to participation in the HII. Many of the sample had participated and completed 'ideology-specific' education programmes, with some doing other interventions prior to or during the study review period. As the numbers are so small with many of those convicted of terrorism or terrorism-connected offences being eligible to complete the HII, it is unlikely that a control group, let alone one which had not completed any other interventions or education programmes, would have been possible.

Given the limitations set out above and importantly the lack of a control group to allow any change to be attributed to HII, the findings set out in this report must be viewed as indicative.

## **3.2 Qualitative Research Strand**

The qualitative research strand included the qualitative interviews with individuals who had recently completed the HII and a thematic analysis of post-intervention HII reports completed by the intervention facilitators. The qualitative interview element is outlined first.

### **Qualitative IPA Interviews**

#### **Aims and objectives**

This study focussed on exploring the value of the HII through understanding participant's experiences of undertaking the intervention.

## **Sample**

All individuals with terrorism and terrorism-connected convictions who had completed the HII within 12 months of December 2019 (n = 12) were sent a letter inviting them to participate in the research. The letter included study information and details on consent. Three individuals agreed to participate. Follow-up letters were sent to the remaining nine to encourage participation, however there were no further volunteers. The participants (all Islamist-influenced) were at different stages of their sentence, with two residing in custody and one in the community. All participants were male, ranging between 20 and 40 years old. Factors such as ideology, custodial status, sentence length and varying individual risks and needs were all considered when drawing interpretations.

## **Method**

A semi-structured interview included open questions exploring participant's overall experience of HII, learning, facilitator relationship, different modules of the intervention, and future hopes and plans linked to discussions around disengagement. Interviews lasted approximately 60 minutes. Two were recorded using a Dictaphone, one using handwritten notes due to restrictions at one of the custodial sites. The interviews took place in a private room. All interviews were completed by the same interviewer, followed informed consent protocols, with all raw data held securely within the prison where the researcher was based. The data was then transcribed by the researcher, ensuring that all information that could result in identification of the participants was removed.

## **Analysis**

IPA was used as it focuses on the experiences of people and the meanings of these experiences to them. The use of open and exploratory questions was beneficial as there is limited existing research in this area specifically in relation to extremist offenders' experiences of undertaking the HII.

The analysis involved several phases. Initial analysis identified key descriptive comments, linguistic characteristics and interpretative conceptual comments. Preliminary themes were developed, followed by identifying connections and grouping themes together as clusters before tabulating themes in a summary table. This was completed for each participant to identify super-ordinate and sub-themes. A

cross-case analysis was then conducted, searching for differences and similarities, developing a deeper understanding of the data. The researcher led the analysis, reviewing each phase with her supervisors, discussing potential assumptions, theme identification and interpretative quality. A reflective diary and notes from interviews were kept and reviewed aiding the analytic process and supporting the researcher in 'bracketing'<sup>26</sup> any presuppositions.

### **Limitations**

As the IPA included three participants, it cannot be considered representative of all those who have completed the HII. Participants were a self-selecting sample and may therefore hold particular views regarding the intervention. The three that volunteered may in some way be different from the nine that did not volunteer, but as stated, there were no obvious unique characteristics (based on the information that was collected for this study) identified. Although the researcher does not directly work with this population, they do work within HMPPS, and participants may have felt uneasy disclosing certain information. To help mitigate this, participants were invited to ask questions of the researcher, and this was discussed further when informed consent was sought. The researcher reviewed the relevant research prior to data analysis, also creating the potential for bias. The researcher remained mindful of this, and the impact of potential bias was considered throughout the study.

## **Qualitative HII post-intervention report Inductive Thematic Analysis**

### **Aims and objectives**

This research analysed the HII post intervention reports, which are facilitator authored, and designed to present evidence about the progress made by individual participants having completed the HII. This research aimed to explore what effect the HII was having on the individuals who completed the programme, and what this tells us about the observed routes (if any) to change.

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<sup>26</sup> During the early stages of analysis, the researcher attempts to suspend presuppositions and judgements in order to focus on what is actually presented in the transcript data, this involves the practice of 'bracketing' (Husserl, 1999). This involves the suspense of critical judgement and a temporary refusal of critical engagement, which would bring in the researcher's own assumptions and experience (Spinelli, 2002). As the analysis proceeds a more interpretative process follows.

## **Sample**

The HII post-intervention reports are completed by the programme facilitator within 12 weeks<sup>27</sup> of intervention completion. Thirty reports were included in this study as relevant literature (e.g., Braun & Clarke, 2013) suggests that a sample size of 30 can be adequate when exploring relatively new areas of research. The sample of reports relates to 30 individual HII completions between July 2010 and February 2018. Reports were selected using stratified sampling to ensure the selected reports proportionally reflected the population characteristics relating to ideology, gender and whether the HII was delivered in custody or in the community. Reports were randomly selected from this pool by the data asset owner, using a random number generator to select the individual cases. One report was subsequently excluded from the final thematic map as it was based on a 2010 pilot case, which was not comparable due to changes implemented in 2011 and 2012 as a result of the pilot evaluation. The final sample included 24 Islamist-influenced extremist reports, the remainder reflecting other extremist ideologies.<sup>28</sup> 24 of the reports were for males and five reports were for females, and 21 of the HII deliveries took place in custody and eight took place in the community.

## **Method and Analysis**

Inductive Thematic Analysis (TA) was used to explore the data and identify common themes within the dataset. Inductive TA was selected as the researcher approached the data without set ideas about the themes that would be identified. This is based in part on the exploratory nature of the study and limited existing literature to guide expectations of themes relating to the research aims and questions. To ensure that this process remained robust and can be replicated, Braun and Clarke's (2006) Inductive TA steps were followed including familiarisation with the data, collating the coded data items, searching for themes and organising the coded data relevant to each theme, reviewing the themes and weaving together the analysis and data extracts to tell a story about the data, and contextualising the analysis in existing literature.

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<sup>27</sup> Since the research, this has been reduced to 8 weeks.

<sup>28</sup> Other extremist ideologies included politically motivated ideologies and single-issue ideologies e.g., animal rights extremists.

Assumptions of the researcher when approaching the dataset were considered and reflected upon during the analysis to ensure that the themes were an accurate representation of the data, and not a result of the researcher's own attitudes and beliefs. Whilst other forms of research use inter-rater reliability, such methods are not advocated by leading TA figures, who see it as evidence 'that two researchers have been trained to code data in the same way, rather than that their coding is accurate' (Braun & Clarke, 2018).

### **Limitations**

Limitations of the inductive TA included the motivational style and standardised template of post-intervention reports, which may have impacted on the themes identified. The reports were also completed by a range of differently qualified individuals, who may have brought their own biases when completing the reports. The selection of a pre-existing dataset (the post-intervention reports) to some extent mitigated issues linked to potential bias during data collection such as self-report, socially desirable responding and experimenter effects. However, the bias involved in the completion of post-intervention reports could not have been retrospectively controlled or mitigated. The use of an anonymised pre-existing dataset prevented the use of 'member checking' where the researcher returns to those involved to check whether the themes identified are reflective of their experience. Whilst the stratified sampling approach meant that the sample was comparable to population characteristics, the ability to do subgroup analysis was limited due to the small sample size for some groups. As such, caution is recommended when interpreting these comparisons. There are limitations that arise when conducting qualitative research, particularly in relation to possible conclusions that can be drawn from the data. For example, the approach allows rich understanding of the cases involved but there are limitations regarding the extent to which identified themes can be generalised when using a qualitative approach.

## 4. Results

### 4.1 What evidence is there that HII is effecting change?

#### Quantitative Findings

The quantitative analysis found that overall, there were statistically significant positive pre-to-post change on two (i.e. ERG22+ and EBI Measure) of the three measures used to explore changes.

#### **ERG22+**

Regarding the ERG22+ measure of pre-to-post change, post-HII, ERG22+ levels were lower than pre-HII levels across all three dimensions ( $X^2(716.6) = 28.1, p < .0001$ ): Engagement (estimated marginal mean = 0.71,  $p < .0001$ ), Intent (0.66,  $p < .0001$ ), and Capability (0.18,  $p = .049$ ) (see Appendix 4, Tables 5-7). The dimensions for which there was a statistically significant change pre-to-post HII were Engagement and Intent. That is, compared to before completion of the HII, there was a reported decrease in association and interest in an extremist group or cause, and decreased motivation to remain involved in extremism. In addition, post-HII participation, there was a decreased reported willingness to offend or cause harm on behalf of an extremist group, cause or ideology, however this was not statistically significant. The least change was demonstrated in the capability dimension. Several reasons may explain this finding. First, the capability dimension explores enabling factors including knowledge, skills and competencies, resources and networks, and criminal history; it is the least dynamic and least likely to change of the three dimensions. Second, the HII was designed to address the psychosocial factors in the ERG22+, most of which are covered within the engagement and intent dimensions. Third, some of the risk associated with the capability dimension may be mitigated due to imprisonment or licence conditions imposed as part of individual sentences.

#### **EBI Measure**

For the EBI Measure there were statistically significant reported changes pre-to-post HII on several reported behavioural indicators suggestive of desistance and disengagement from extremism, with evidence of significant positive pre-to-post changes on the *Intent* and *Skills domains*. There was, however, little significant change reported pre-to-post HII on the *Disillusionment* and *Identity Change domains*.

For the *Intent domain*, findings included that there was less post-HII endorsement on the intent items than pre-HII endorsement. With the limitations to this study in mind, findings provide tentative evidence that HII may positively affect individual desistance from extremism. This is indicative of individuals being less willing to act illegally or harm others on behalf of an extremist group, cause, or ideology, having participated in the HII.

For the *skills domain*, there was greater post-HII endorsement of these behavioural indicators across the sample than pre-HII endorsement. This indicated that individuals may have, as a result of participation in the HII, developed improved skills and coping mechanisms, which is likely to support desistance and disengagement, and prevent future re-engagement.

For the *disillusionment domain*, a review of the data as part of the analysis found that, on starting the HII, the majority (n=52) of participants had already started to disengage. This meant that for many of the sample, there was evidence of disengagement prior to completion of their initial ERG22+, which may explain why there appeared to be less progress made in this domain of the EBI Measure. Despite there being no statistically significant findings regarding disillusionment in the EBI Measure analysis, the analysis uncovered valuable insights into the factors that may impact individual desistance and disengagement from extremism. Of the 17 individuals in the sample for whom there was no evidence of desistance and disengagement prior to the completion of the initial ERG22+, 9 who demonstrated 'no evidence' of disillusionment prior to HII participation, had 'limited' (n = 6) to 'moderate' (n = 3) evidence of disillusionment after the HII completion. For these individuals too, the responses from the open-ended questions in the coding framework further support the literature: that desistance and disengagement are often triggered or advanced by disillusionment. For some, it was disillusionment around extremist group members, associates and fellow extremist offenders. One individual in the quantitative analysis sample commented during the HII that for them, it was the hypocrisy of fellow inmates; their religious and cultural values and beliefs contradicted by their behaviour. Another described how their co-defendants abandoned them after conviction and offered them no support. For others, it was



disillusionment with violence and the means by which they, or their groups, had gone about attaining their objective/s. One individual noted that those offending and acting off their own backs did not help the international plight for which they were fighting. Another commented that, in spite of their intentions, their actions did far more harm than good.

In terms of the *identity change domain*, trying to measure identity transformation using only a few items centred on prosocial relationships, interests and activities is ambitious (see Appendix 3 for detail on the items in this domain). With 53 (75%) of the sample either still in custody or under licenced supervision in the community, it is unlikely that many of the individuals in the sample would have had much opportunity to evidence these behavioural changes suggestive of identity transformation.

### **OASys**

The OASys analysis found that there was no pre-to-post HII effects for OGP, OVP or OGRS3 scores. Upon reflection, this was perhaps not surprising, given the anecdotal evidence that OASys actuarial measures may not be an appropriate means by which to assess terrorist offenders' risk and need (NOMS, 2011).<sup>29</sup>

### **Qualitative Findings**

Within 28 out of the 29 reports included in the final thematic map, facilitators recorded some degree of progress following completion of the HII (see Appendix 5 for the thematic map). Whilst it was recognised that progress was relative to the participant's position at the start of the intervention, even for those who had already demonstrated some evidence of desistance and disengagement, the HII provided an opportunity to consolidate and cement longer-term change. The over-arching themes of disillusionment and changes in social network and identity were repeatedly observed and recorded as indicators of progress, consistent with the literature on

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<sup>29</sup> Both the OGP and the OVP are derived from the typical outcomes for individuals without terrorist or terrorist-connected convictions and are weighted in the case of the OGP by gender, age and previous offending and, in the case of the OVP, by alcohol use and previous violent offending. Individuals with convictions for terrorism and terrorism-connected offences, who largely make up the population within HMPPS, are (based on available information) typically motivated by several factors, including redressing injustice, and achieving political or social change, are generally older, non-users of alcohol with no, or little history of previous offending. The OVP may apply, but only to those individuals who also have a history of criminality and violence, and only to the prediction of further general offending or further non-extremist violence (NOMS, 2011).

factors impacting desistance and disengagement from extremism (e.g., Altier et al., 2017; Barrelle, 2015).

Interviews with the three participants who had completed the HII supported the progress described in the facilitator reports, with the individuals reflecting on changes relating to four super-ordinate themes (each with sub-themes): positive changes, redefining personal identity, practical factors, and future hopes (see Appendix 6 for the super-ordinate and sub-themes). In terms of the reported positive changes participants described, this related to the opportunity to learn and develop new skills, specifically relating to problem solving, objective thinking and triggers to their offending. These changes were said to have been made once initial concerns and anxieties about what the intervention would involve had been resolved and through the collaborative relationship developed with the facilitator. Having a good relationship with the facilitator was perceived by those interviewed to have also enabled them to be more open in discussing areas of their life that they had previously found difficult, for example, Participant 2 stated, *“I could talk to [them] about anything, I found [they were] great like that...we discussed quite a bit of umm my younger years, which I’ve never spoke to anyone about”*.

In terms of redefining identity, the participants reported that the HII had developed their understanding of their personal identities, resulting in new pro-social life commitments being identified, including recognising the importance of family relationships, responsibilities and work commitments. Developing an understanding of personal identities led to identification with pro-social roles such as being a *“father, son, husband, these are key roles and how society sees me, it is a more holistic approach. I am disenchanted with the whole group/cause/organisation”* (Participant 1). Another example comes from Participant 2, who commented that, *“Today I’m a totally different person and that had a lot to do with finding out who I really was, who I really am and it’s changed me in a lot of ways, it’s had a lot of positives for me”*. Participant 3 also noted that the HII *“made me understand myself a lot more”*.

As a result of this experience, the participants identified with a more positive self-image, and took responsibility for how that self-image did not align with their previous actions. For example, Participant 1 stated, *“How I saw myself was not how others*

*saw me, and how I wanted people to see me was not how people were perceiving me. I was being perceived negatively, wanted to project myself as intelligent, benefitting community, in reality, I was the opposite”.*

Practical factors highlighted as important by those interviewed included how completing their ERG22+ prior to starting the intervention helped to foster open and motivated communication with professionals working with them. Personal assignments and the post-intervention report were also viewed as beneficial, allowing for reflection and consolidation of learning.

In relation to future hopes, a theme emerged around participants being aware of wanting to set realistic goals. Participants seemed hesitant about describing any longer term or ambitious plans for their futures. Participant 1, for example noted that, *“I don’t want to set myself up for a fall...need to hold myself back too...first step when I go out is to go into a hostel. I have been out of society...I may not work again, need to have that mind-set in place too.”* Despite the uncertainties described by participants, some goals were identified, including work opportunities, further education, new interests, and making new friends.

Participants described their individual experiences of moving away from extremist groups, causes and/or ideologies and the factors related to their own disillusionment. These factors varied and for example, Participant 1 described feeling brainwashed, *“I always thought I was an intelligent person, independent; the idea of following someone/ being brainwashed, never saw myself being a victim to that. When thinking objectively, it helped me to see the influences”*. Although participants’ experiences of support were positive, considering the sub-themes around setting realistic goals and community reintegration anxieties, one finding was that these areas could be explored further within the HII to support individual’s in feeling empowered and more confident about their future resettlement and reintegration into the community.

## **4.2 Is there a variation in disengagement pathways?**

Despite there being non-statistically significant findings regarding disillusionment in the EBI Measure analysis, the data uncovered valuable insights into the factors that

may be associated with individual desistance and disengagement from extremism. In line with the current literature (Keane et al., 2022a) and the findings from the qualitative studies', the findings of the current quantitative study provide further indication that it may be the same factors across varying types of extremism that influence desistance and disengagement; most notably disillusionment, relationships and shifts in priorities (Altier et al., 2014; Altier et al., 2017; Barrelle, 2015; Chernov Hwang, 2015).

### **Variation depending on ideology**

Altier et al. (2014) suggested that the push and pull theory may not tell the whole story, that the factors that push and pull people away from extremism may vary depending on a number of features, including ideology. Consequently, further research at an individual and group level was supported. With the limitations of small samples in mind, the majority of themes that emerged from the qualitative thematic analysis of the HII post-intervention reports were generally shared regardless of ideology. The limited differences between the ideologies included: loss of position (politically motivated group only), not wanting to be viewed negatively (Islamist influenced extremists only) and internal conflict (Islamist influenced extremists only). This suggests that there are some observed differences regarding push or pull factors depending on the group, cause or ideology concerned.

### **Variation depending on gender**

Within the qualitative thematic analysis of the post-intervention reports, gender differences were observed regarding themes around identity. Amongst the females included in this study (N=5), there was a reported recognition of women's rights and wanting to enjoy freedoms not previously permitted by cultural expectations and restrictions, and their past ideology. This appeared to have played an important role in their severing links with significant extremist others, who had previously used their positions to influence the female participants' commitments to an extremist group, cause or ideology. Males placed less emphasis on the role of relationships and more emphasis on not allowing past behaviour to define who they are, how they are, or who, and how, they want to be perceived in the future. The importance of a consistent sense of identity in protecting against future risk of re-engagement in

extremism is highlighted in research involving interviews with former extremists (Horgan et al., 2016).

The Islamist-influenced male extremist group reported themes of not wanting to be viewed negatively by others. Providing a non-judgemental experience with facilitators and supervisory staff from different cultural backgrounds can therefore assist in challenging such beliefs, which otherwise may reinforce commitment to extremist groups and ideologies. Similarly, exposure to out-groups (including staff) was identified as a separate 'pull' factor within the over-arching theme of social networks. This is understood to have contributed to disengagement through recognition of similarities with out-groups, resulting in further questioning of the in-group's response to other (out) groups.

### **Variation depending on location of HII completion**

Existing literature has suggested 'push' factors may be more important at the start of the disengagement process and 'pull' factors play a larger role once disillusionment has already begun (Altier et al., 2014; Keane et al., 2022a). In the inductive thematic analysis of the post-intervention reports, a greater number of 'push' (e.g. loss of faith in the group, disillusionment with the consequences) and 'pull' (e.g. exposure to outgroups, desire to establish family relationships) factors were observed in custodial HII completions (n = 22), versus community completions (n = 8). The 'importance' of these factors cannot be inferred from the data as this was not a specific question and importance may be subjective and dependent on individual circumstances. The greater number of sub-themes identified for the Islamist influenced extremists completing HII in custody versus in the community was posited to relate to the participant's point in their sentence.

### **4.3 Were any barriers to progress on HII identified?**

In general, stated barriers to progress included personality traits, denial or minimisation, aggression, lack of motivation, avoidance of certain discussions, learning style, resistance, mistrust, and having English as a second language. Most barriers were reported for individuals within the Islamist-influenced group which was proportional to their larger presence within the sample, and two out of three extreme

right wing offender cases described barriers to treatment. These barriers were overcome by facilitators, who reported improved participation over the course of the intervention. A bespoke approach was required in some cases, which involved being responsive to the individual and adapting delivery appropriately and proportionately. For example, for those who denied or minimised their offending, sessions focused on over-commitment, rather than specific examples of observed behaviour. For the case with no progress in the facilitator report, it involved an extreme right-wing offender with significant barriers to open and active participation due to a diagnosis of Autistic Spectrum Disorder, and a requirement for specialist staff involvement.

## 5. Discussion

The current evaluation sought to explore whether the HII is impacting various indicators of change over time, for individuals convicted of terrorism and terrorism-connected offences. The findings provide initial evidence of the positive changes being made by individuals who participated in the HII.

The studies highlighted that although there are some positive preliminary findings, causation between participation in the HII and participant change cannot be demonstrated given the many limitations to evaluative research in this field. The indicative findings of the evaluation do point to the need to both further develop and improve the assessments used to assess individuals with terrorism and terrorism-connected convictions, as well as the HII, designed to address their risk and need.

An individual's position on the continuum between engagement and disengagement should guide intervention focus, and this study provides some insight into what the focus might need to be at various stages. For one individual already disengaging, the HII (in conjunction with other interventions and management strategies) could be used to consolidate any disengagement already taking place and provide those individuals the skills to avoid re-engagement and re-offending. For another, who is still engaged, different measures could be put in place to mitigate risk, and intervention could be appropriately and proportionately targeted.

The literature suggests that some distance from an extremist group or cause is, in many cases, required to develop dissonance, foster disillusionment and re-examine personal and social identity (Keane et al., 2022a). The findings from the two qualitative studies point to HII affording the participants the distance from an extremist group or cause, and space to enable them to reflect on how as individual's, they have come to be involved in extremism.

One area that potentially requires focus is for those individuals who have not yet started to desist or disengage. The HII could possibly be further developed for those who have not yet demonstrated evidence of desistance and disengagement, to focus on developing dissonance and encouraging disillusionment in a considered and

sensitive way (so as not be counter-productive). The HII currently attempts to do this using the Good Lives Model (GLM) (Ward & Stewart, 2003), by invoking dissonance between personal identity and the 'social identity' associated with an extremist group or cause. Consideration should be given to restructuring the HII, with the core modules focusing on the GLM remaining as they are, but with the additional optional modules better aligned with where an individual is on the continuum between engaging and being disengaged.

For example, a finding of the research was the need for a more explicit focus on skill development: to empower individuals to live an offence-free life without re-engaging in extremism. A specific module focused on skills such as critical thinking, perspective-taking, objectivity, flexible-thinking, and emotional management may benefit many individuals convicted of terrorism and terrorism-connected offences. Some of the skills covered in other accredited OBPs offered through HMPPS are relevant to individuals with terrorism and terrorism connected convictions. Parts of these programmes could be adapted to ensure relevance to extremism, and flexibly and responsively incorporated into the HII.

The literature is clear that identity transformation is key to successful desistance and disengagement, and successful reintegration into society (Keane et al., 2022a). Identity Theory (Tajfel & Turner, 1986) is particularly relevant to extremism (Chernov Hwang, 2015) and according to the literature should, in part, be the focus of desistance and disengagement programmes (Barrelle, 2015; Harris et al., 2018). Consideration is warranted around how best to measure identity transformation. The findings from the pre- to post-HII study reported here point to exploring and measuring identity alongside recidivism, as transformation research may be better suited to longitudinal studies with larger samples.

An important finding from the qualitative and quantitative studies is that the HII is not delivered in isolation of wider rehabilitative processes and structures that all work towards preventing reoffending and re-engagement in extremism. Findings from the qualitative studies, in particular, highlighted that informed and therapeutically sensitive support from professionals and front-line staff encouraged and supported individual participation in the HII. The helpful influence of exposure to safe and



supportive staff and environments is consistent with existing literature related to rehabilitative culture<sup>30</sup> (Mann et al., 2018). The HII may benefit from reconsidering environmental factors focusing on fostering a safe and supportive culture within delivery sites, and more widely as an organisation. Future research could explore whether the extent of adoption of rehabilitative culture impacts on the relative success of interventions (including HII) with extremist offenders.

In terms of the variation in disengagement pathways noted between custody and community, one hypothesis for this is that, whilst in custody, individuals may feel they are having to face the consequences of their behaviour (including incarceration), which in itself is reported as an important factor influencing desistance and disengagement from extremism (Keane et al., 2022a; Windisch et al., 2016), and which may trigger initial questioning of past commitments. In contrast, those completing the HII, whilst also reintegrating into society (community delivery), are likely to have different priorities and may have already distanced themselves from the group, cause or ideology for a number of reasons, which in turn may have already impacted their personal identity. These findings warrant further exploration due to possible implications for the sequencing of the HII, and the possible increased benefits of custodial delivery.

With regard to future research, the studies highlighted the need for better data capture processes that would enable a more rigorous evaluation of the HII to take place.

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<sup>30</sup> Mann et al. (2018) describe a rehabilitative culture as a culture with a purpose; that is, to support individual's in turning away from crime and towards a different life, where individuals can think about their futures with hope.

## 6. Conclusion

To conclude, it is unlikely that there is a single study that will demonstrate the effectiveness of the HII, and programmes designed to facilitate individual desistance and disengagement. For this reason, a number of evaluative activities have been conducted in an effort to produce cumulative and replicable evidence of the HII's potential to support individual change. Being mindful of the limitations to this evaluation; together, the findings from the three separate studies provide initial evidence that suggests that the HII does support individuals making positive changes that may contribute to their desistance and disengagement from extremism. Further development and refinement of both the ERG22+ assessment and the HII should improve outcomes for individuals convicted of terrorism and terrorism-connected offences.

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# Appendix One

## The Extremism Behavioural Indicator (EBI) Measure

The EBI Measure was designed for the purposes of this study. It was developed based on literature, experience, and consultation with experts in the field. The measure is made up of 23 behavioural indicators of engagement and involvement in extremism, and 20 behavioural indicators of desistance and disengagement.

Each indicator was rated in the 6-month period pre- and 6-month post-HII completion. The possible ratings for each indicator were 'no evidence', 'limited evidence', 'moderate evidence' and 'strong evidence'.

**Table 1: Extremism Behavioural Indicator (EBI) measures**

Number	Behavioural Indicator
<b>Evidence of Engagement/Involvement in Extremism pre- and post-HII delivery</b>	
1	Associating with other extremists
2	Being coerced into extremism
3	Writing to, and/or corresponding with other extremists
4	In possession of extremist material or symbols
5	Changes in appearance signifying extremist views/beliefs
6	Verbalising extremist views/beliefs/ideology
7	Verbalising praise/support/justification for own offending, known extremists, extremist activities or acts of terrorism
8	Verbalising praise/support/justification for general offending
9	Verbalising or action symbolising ongoing grievance or threat thinking/feeling
10	Verbalising or action symbolising desires to bring about political/social change
11	Verbalising or action suggestive of distorted political/theological/ideological views
12	Coercion/Bullying of others to become involved in extremism (i.e., radicalising or inciting)
13	Verbalising or actions signifying over-identification/over-commitment

<b>Number</b>	<b>Behavioural Indicator</b>
14	Incidents of violence instigated or involved in
15	Incidents where they have coerced/bullied/incited others (not extremism-related)
16	Non-extremist criminality
17	General reports of bad behaviour/non-compliance with regime
18	Verbalising or action suggesting they see themselves in an 'in-group' & others in an 'outgroup'
19	Use of insulting/derogatory names or labels for members of out-group
20	Verbalising or action suggesting those from the out-group deserve punishment and suffering
21	Verbalising or actions signifying poor resilience
22	Verbalising or actions signifying their inability to think critically about things or consider other points of view
23	Verbalising or actions signifying inability to tolerate difficult emotions
<b>Evidence of Desistance/Disengagement from Extremism pre- and post-HII delivery</b>	
1	Verbalising or actions signifying disinterest in group/cause once associated with
2	Verbalising or actions signifying dissatisfaction/disillusionment with involvement in, and/or aims/objectives of an extremist group, cause or ideology
3	Verbalising or actions signifying dissatisfaction or distress with violence/harming others
4	Verbalising or actions signifying dissatisfaction with offending as a means of fulfilling group, cause goals/objectives
5	Changes in appearance to signify individual no longer identifying with a group, cause or ideology
6	General reports of good behaviour/compliance with regime
7	Verbalising or actions indicating commitment to legal means to pursue political or social goals
8	Verbalising or action suggestive of greater understanding of theology/politics/ ideological views
9	Verbalising or actions indicating burnout
10	Verbalising or actions indicating commitment and engagement in wider prison community or society
11	Distancing themselves from or verbalising opposition to other extremists, and extremism

<b>Number</b>	<b>Behavioural Indicator</b>
12	Resisting coercion from others
13	Verbalising or actions signifying identification with different important aspects of life un-associated with extremism
14	Verbalising or actions indicating individual is fulfilling needs identified in ERG22+ in prosocial/legitimate ways
15	Evidence of relationship with member/s of out-group
16	Verbalising or actions signifying greater resilience
17	Verbalising or actions signifying an improved ability to tolerate difficult emotions and cope with life's challenges
18	Verbalising or actions signifying critical thinking and/or perspective-taking
19	Verbalising or actions signifying greater personal agency and self-efficacy
20	Increased interpersonal trust with prosocial others



## Appendix Two

### Inter-rater Analysis

To ensure there was inter-rater reliability on the EBI Measure, five cases (7% of the total sample) were independently coded by each of the four raters. The Intraclass Correlation Coefficient (ICC) estimates, and their 95% confidence intervals were calculated using SPSS statistical package version 27 (SPSS Inc, Chicago, IL), based on a single rating,<sup>31</sup> absolute agreement,<sup>32</sup> 2-way mixed effects model<sup>33</sup> (Koo & Li, 2016). Overall, with 95% confidence intervals, the inter-rater agreement across the 5 cases (N=550) ranged from moderate to good<sup>34</sup> (ICC[3,<sup>35</sup> 1<sup>36</sup>] ranging between .741 and .797). With 95% confidence levels, the overall inter-rater agreement across the 5 cases for ordinal items<sup>37</sup> (N=125) was good (ICC[3,1] ranging between .755 and .852) and the inter-rater agreement for binary items<sup>38</sup> (N=425) was moderate (ICC[3,1] ranging between .652 and .729). See Table 2 for the overall ICC.

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<sup>31</sup> Single rater denotes that measurement originates from a single rater, even if in this case, there are 4 raters.

<sup>32</sup> Absolute agreement is related to whether different raters assign the same score to the same subject.

<sup>33</sup> With this model, the results represent the reliability of raters specific to this study. These results cannot be generalised to other raters.

<sup>34</sup> Values less than 0.5 are indicative of poor reliability, values between 0.5 and 0.75 indicate moderate reliability, values between 0.75 and 0.9 indicate good reliability, and values greater than 0.90 indicate excellent reliability (Koo & Li, 2016).

<sup>35</sup> 1 denotes one-way random effects, 2 denotes two-way random effects, and 3 denotes two-way mixed effects (McGraw & Wong, 1996).

<sup>36</sup> 1 denotes a single rating, whilst k denotes the average of 2 or more ratings by different coders (Koo & Li, 2016).

<sup>37</sup> The raters were asked having reviewed several sources to state whether there was 'no evidence', 'limited evidence', 'moderate evidence' or 'strong evidence' for various behavioural indicators of engagement and disengagement.

<sup>38</sup> The raters were asked having reviewed several sources to state whether ('yes') or not ('no') there was evidence of various behavioural indicators of engagement and disengagement.

**Table 2: Overall ICC across 5 cases, 550 items and 4 raters**

	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.770 <sup>a</sup>	.741	.797	14.887**	549	1647	<.000
Average Measures	.930 <sup>c</sup>	.920	.940	14.887**	549	1647	<.000

NB: \*\* significant at  $p < 0.01$ , \* significant at  $p < 0.05$ .

Two-way mixed effects model where people effects are random and measures effects are fixed

- The estimator is the same, whether the interaction effect is present or not.
- Type A intraclass correlation coefficients using an absolute agreement definition.
- The estimate is computed assuming the interaction effect is absent because it is not estimable otherwise.

There was a lot of variability in inter-rater reliability across the 5 cases: ranging from poor to excellent. For Case 1, with 95% confidence intervals, the inter-rater agreement was excellent (ICC[3,1] ranged between .934 and .963). For Case 2, with 95% confidence intervals, the inter-rater agreement ranged from moderate to good (ICC[3,1] ranged between .782 and .873). For Case 3, the inter-rater agreement was good (ICC[3,1] ranged between .758 and .858). For Case 4, the inter-rater agreement ranged from poor to moderate (ICC[3,1] ranging between .493 and .674). Finally for Case 5, the inter-rater agreement was moderate (ICC[3,1] ranging between .571 and .744).

Variability in the inter-rater agreement was expected given the multi-layered interpretation required. That is, the interpretation of the professionals recording the behaviour (e.g., in the case of an ERG22+ report, a contact log, or intelligence report) and then the coder's interpretation of the recorded information and the behaviour. It is likely that discussion and the short period of time between training and agreeing definitions, and the coding of case 1 may have resulted in greater inter-rater agreement than the other 4 cases, that were completed later. On closer inspection of case 4, there is nothing obvious that would explain the poor agreement between the raters. 112 The only factor that sets case 4 apart from the other cases, is that it

relates to a case in which the individual completed the accredited version of the HII49. The poorer inter-rater agreement could be the result of lengthy detailed reports, requiring increased subjective interpretation of whether certain behavioural indicators were evident e.g., greater resilience or evidence of relationship with a member, or members of the out-group.

# Appendix Three

## The Quantitative Measures

The coding framework for the quantitative study included three measures: the ERG22+, the OASys and the EBI Measure.

As part of the ERG22+ assessment, assessors are asked to consider the 22+ factors, and record and evidence those significant to an individual's pathway into extremism (i.e., engagement), how they overcame inhibitions against offending and/or harming others (i.e., intent) and their ability to contribute to, or commit a further extremist offence (i.e., capability). As part of the ERG, assessors are asked to consider the 22+ factors with the purpose of developing a formulation exploring how the individual came to be involved in terrorist offending, and how best to address any risk and need in support of their rehabilitation/reintegration into society.

The engagement dimension seeks to explore an individual's pathway into extremism, the process by which an individual becomes interested in, involved in, committed to, and/or identifies with an extremist group, cause and/or ideology (NOMS, 2011). It contains 13 factors. The intent dimension explores the process by which an individual overcomes inhibitions against offending and/or harming others. This dimension concerns the mindset associated with a readiness to act illegally and/or violently on behalf of an extremist group, cause, or ideology (NOMS, 2011). It is made up of 6 factors. The capability dimension explores an individual's capacity to cause harm, particularly serious harm and acts of terrorism (NOMS, 2011). This dimension contains 3 factors.

As part of the ERG22+, and based on the evidence and the guidance, assessors are asked to give an indication of overall levels of engagement, intent, and capability. For engagement and intent, the level can be assessed as being 'low', 'medium' or 'high', and for capability, the level can be assessed as 'minimal', 'some' or 'significant'. Assessors are then asked to comment on the individual's risk and need, and importantly make recommendations that serve to prevent reoffending (i.e., facilitate desistance) and support an individual moving away from extremism

(i.e., disengagement). It was the overall levels of engagement, intent and capability that were extracted for the sample pre-and post-HII.

Despite the measurement of the psychometric properties of the ERG22+ being in their infancy, there is preliminary support for the construct validity, internal consistency, and inter-rater reliability of the ERG22+ (Powis et al., 2019a; 2019b).<sup>39</sup>

The OASys is used with all adult offenders after conviction, and periodically thereafter. It is an assessment of an offenders' risks and needs, in support of individualised sentence and risk management plans. It was developed based on the 'what works' evidence. It combines actuarial methods of prediction with structure professional judgement (SPJ). It was the actuarial scores; the OGP, the OVP and OGRS3 that were extracted pre- and post-HII completion.

This well-established assessment demonstrates construct validity, internal reliability, inter-rater reliability, and predictive validity (Debidin, 2009).<sup>40</sup>

As stated, the EBI Measure was designed for the purposes of this study. Each indicator was rated in the 6-month period pre- and 6-month post-HII completion.

The EBI Measure asks raters based on counts, either to say whether there is no evidence, limited, some or strong evidence of 12 behaviours, and whether or not there is evidence indicative of either engagement in, or disengagement from extremism for 31 behavioural indicators. Alluded to in the name, the EBI Measure is concerned with observable behaviours. It is distinct from the ERG22+ in that the EBI Measure is concerned with behavioural indicators whilst the ERG22+ is concerned

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<sup>39</sup> Initial indications are that the ERG22+ has construct validity (MDS; CoA = .23), internal consistency (alpha coefficient of 0.80) and inter-rater reliability (research IRR item wise: weighted kappa scores ranged between 0.81 & 1 and ICC1 scores between 0.81 & 1; research IRR case wise: pooled weighted kappa of 0.95 (SD = 0.1); field IRR: overall for case 1 was "moderate" (ICC1 = 0.48; kF = 0.47), and levels of agreement were marginally improved for case 2, with ICC1 values suggesting a "moderate" level of reliability that was borderline "good" (ICC1 = 0.6; kF = 0.59) (Powis et al., 2019a; 2019b).

<sup>40</sup> Due to the number of scales within OASys, it is beyond the scope of this summary to present the relevant coefficients. Chapters 4, 5 & 6 of Debidin's (2009) publication covers internal consistency and construct validity, inter-rater reliability and predictive validity respectively.

with explaining how and why an individual engages in extremism and offends on behalf of a group, cause or ideology. The EBI Measure is a first attempt to draw together a number of indicators into one measure to explore changes in behaviour indicative of engagement and disengagement.

To subject the EBI Measure to inferential statistical analysis, items were aggregated into four domains (see Table 3). The *Intent domain* is made up of engagement items indicative of continued harmful thinking, attitudes that justify offending and a readiness or willingness to commit further offences (extremist and/or more general criminality). The other 3 domains came from the desistance and disengagement behavioural indicators. The *Disillusionment domain* includes those items signifying doubt and disillusionment with continued involvement in extremism, the *Identity Change domain* combines items that indicate that the individual is identifying with prosocial/non-extremist aspects of their lives, signifying a movement away from extremism, and finally, the *Skills domain* aggregates items indicative of skills to mitigate against future engagement and involvement in extremism.

**Table 3 EBI Measure Domains**

Domain	Evidence of Engagement/Involvement pre- and post-HII delivery
Intent Domain	Verbalising praise/support/justification for own offending, known extremists, extremist activities or acts of terrorism
	Verbalising praise/support/justification for general offending
	Coercion/Bullying of others to become involved in extremism (i.e., radicalising or inciting)
	Verbalising or actions signifying over-identification/over-commitment
	Incidents of violence instigated or involved in
	Incidents where they have coerced/bullied/incited others (not extremism-related)
	Non-extremist criminality
	General reports of bad behaviour/non-compliance with regime
	Verbalising or action suggesting they see themselves in an 'in-group' & others in an 'out-group'
	Use of insulting/derogatory names or labels for members of out-group

Domain	Evidence of Engagement/Involvement pre- and post-HII delivery
	Verbalising or action suggesting those from the out-group deserve punishment and suffering
Domain	Evidence of Desistance/Disengagement pre- and post-HII delivery
Disillusionment Domain	Verbalising or actions signifying disinterest in group/cause once associated with
	Verbalising or actions signifying dissatisfaction/disillusionment with involvement in, and/or aims/objectives of an extremist group, cause or ideology
	Verbalising or actions signifying dissatisfaction or distress with violence/harming others
	Verbalising or actions signifying dissatisfaction with offending as a means of fulfilling group, cause goals/objectives
Identity change Domain	General reports of good behaviour/compliance with regime
	Verbalising or actions indicating commitment to legal means to pursue political or social goals
	Verbalising or actions indicating commitment and engagement in wider prison community or society
	Distancing themselves from or verbalising opposition to other extremists, and extremism
	Verbalising or actions signifying identification with different important aspects of their life un-associated with extremism
	Verbalising or actions indicating individual is fulfilling needs identified in ERG22+ in prosocial/legitimate ways
	Evidence of relationship with member/s of out-group
Skills Domain	Resisting coercion from others
	Verbalising or actions signifying greater resilience
	Verbalising or actions signifying an improved ability to tolerate difficult emotions and cope with life's challenges
	Verbalising or actions signifying critical thinking and/or perspective-taking
	Verbalising or actions signifying greater personal agency and self-efficacy
	Increased interpersonal trust with prosocial others

# Appendix Four

## The Quantitative Analysis

**Table 4: Demographic details of the sample of HII participants**

		<b>N</b>	<b>%</b>
<b>Gender</b>	Male	65	93%
	Female	5	7%
<b>Age Range</b>	15-19	7	10%
	20-24	18	26%
	25-29	25	36%
	30-34	12	17%
	35 and over	8	11%
<b>Ethnic identification</b>	Asian	50	72%
	White	8	11%
	Black	5	7%
	Mixed and Other Ethnicities	7	10%
<b>Ideology</b>	Islamist-influenced – General	17	24%
	Islamist-influenced - ISIS	23	33%
	Islamist-influenced - AQ	16	23%
	Islamist-influenced - ALM	8	11%
	Extreme right-wing (ERW)	4	6%
	Sikh-influenced	2	3%

Multilevel regression modelling was used to explore whether there was pre-to-post change having completed the HII, on three outcomes: (1) ERG22+ scale scores; (2.) the OASys actuarial assessment scores, and (3.) EBI Measure scores.



### The ERG22+ Dimensions

The ERG22+ dimension ratings were the dependent (outcome) variables. Time (pre vs. post) and dimensions (engagement vs. intent vs. capability) were the predictor (condition) variables. The ERG22+ ratings were treated as ordinal.<sup>41</sup>

Four regression models were run, iteratively:

1. The **baseline model**: ERG22+ scores alone
2. The **time model** adds the predictor of time (pre vs. post) as a condition,
3. The **dimension model** adds the predictor of dimensions to the time model, and
4. The **time:scale model** adds time + scale + time:scale (i.e., the interaction)

To compare two post-hoc ‘contrasts’ within each of the models, a ‘reference’ category was set for the outcome and predictor variable, to which all other categories were compared, i.e., ‘pre’ was set as the time reference to gain a comparison with ‘post’; and ‘engagement’ was set as the scale reference to gain comparisons with ‘intent’ and ‘capability’.

Analysis of variance (ANOVA) was then used to test each additive to the last to assess whether the new model was a better fit to the data. The results of the ANOVA are summarised in Table 5.

**Table 5: Model comparisons for the ERG22+**

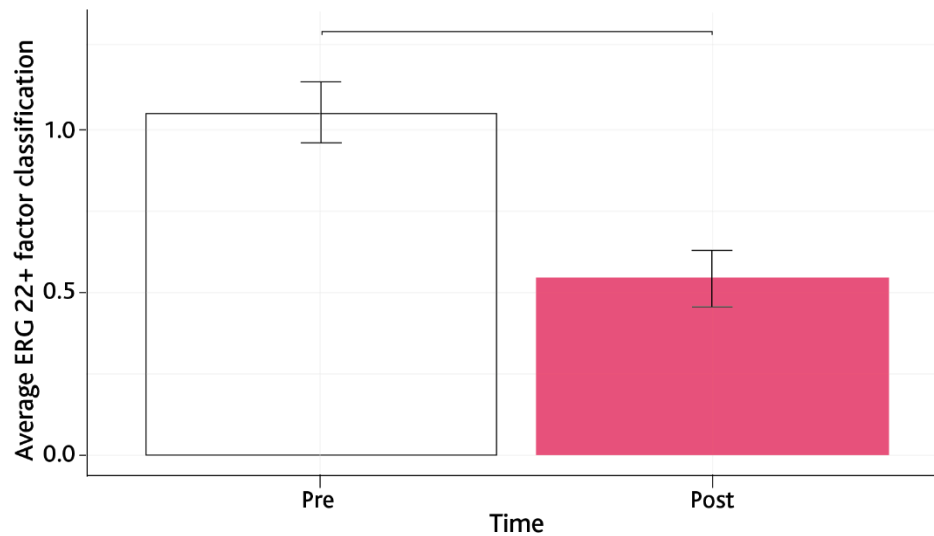
Model	df	AIC	BIC	logLik	L.Ratio	p-value
Baseline	5	755.87	775.93	-372.93		
Time	6	709.16	733.23	-348.58	48.71**	<.0001
Scale	8	700.60	732.69	-342.30	12.56**	0.0019
Time:Scale	10	676.53	716.64	-328.26	28.07**	<.0001

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<sup>41</sup> There are four data measurement scales; (1) *nominal scales* are simply ‘labelled variables’, with no quantity or order [e.g., postcode, eye colour], (2) *ordinal scales* are ordered variables, and can be ranked but the difference between variables cannot be quantified [e.g., high, medium, low], (3) with *interval scales*, the order is known, as well as the difference between values [e.g., temperature], and (4) *ratio scales* are similar to interval scales, with the exception that if a variable equals 0, there is none of that variable [e.g. weight, length].

As shown in table 5 and illustrated by figure 1, statistically significant main effects of assessment time (pre- and post-HII;  $\chi^2(6) = 48.71, p < .0001$ ), and scale ( $\chi^2(8) = 12.56, p < .002$ ) were found. Statistically significant interaction effects were also found with the two-way interaction between time and scale ( $\chi^2(10) = 28.07, p < .0001$ ).

**Figure 1: Bar chart depicting difference in overall ERG22+ ratings pre- and post-HII**



**Note:** \*\*\*\* <.0001; \*\*\* <.001, \*\* <.01, \* <.05

Upon closer inspection of the contrasts set for the most ‘parsimonious’ model<sup>42 43</sup> (i.e., the Time:Scale Model), table 6 highlights those interactions responsible for the significant improvement in fit.

**Table 6: Model comparisons for the ERG22+ dimensions**

Contrast	Value	Std. Error	DF	t-value	p-value
(Intercept)	1.24	0.07	268	16.54**	<.0001
Timepost (HII)	-0.71	0.09	67	-8.03**	<.0001
Scaleint (Intent)	-0.22	0.08	268	-2.87**	0.0045

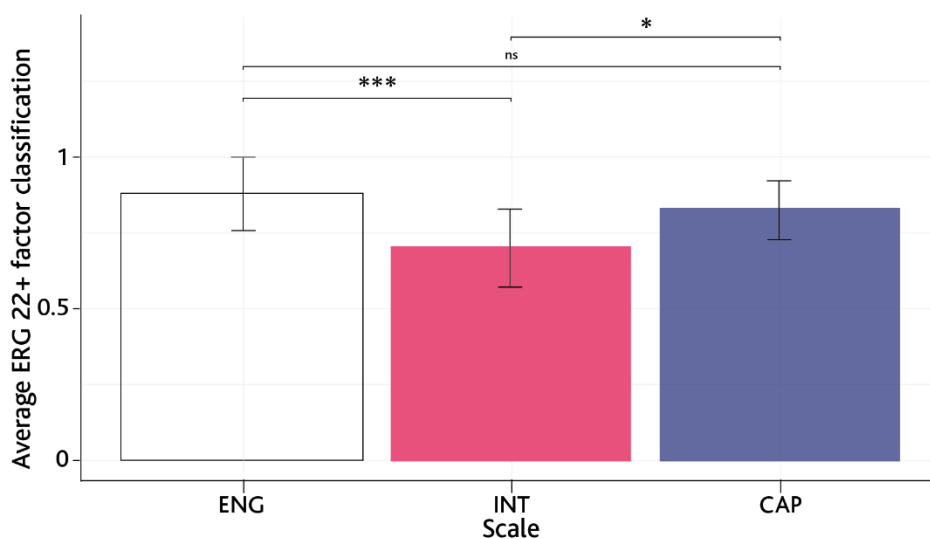
<sup>42</sup> The procedure in multi-level modelling is to explain the “most parsimonious” model in detail. Field et al. (2012; p. 591) state ‘...because we have a significant interaction effect it does not make sense to interpret the main effects because it is superseded by the interaction...’. When there is a statistically significant interaction effect, the main effects cannot be considered independently of the interactions (Frost, 2020).

<sup>43</sup> Linear regression models assume that the residuals of the model are normally distributed.

Contrast	Value	Std. Error	DF	t-value	p-value
Scalecap (Capability)	-0.32	0.08	268	-4.20**	<.0001
timepost:scaleint	0.04	0.11	268	0.41	0.6855
timepost:scalecap	0.53	0.11	268	4.86**	<.0001

The significant time contrast shows that there is a statistically significant difference between pre-to-post-HII ERG22+ ratings overall (- 8.03,  $p < .0001$ ). The significant scale contrasts demonstrate that ERG22+ ratings for both *intent* and *capability* scales differ statistically significantly from the *engagement* scale (-2.87,  $p = .0045$ , and - 4.20,  $p < .0001$  respectively). See figure 2. The interaction contrast (time x scale) demonstrates that the pre-to-post effect is statistically significantly different between *engagement* and *capability* (4.86,  $p < .0001$ ), and a non-statistically significant result indicated that the pre-to-post effect is not different between *engagement* and *intent* (0.41,  $p = .686$ ). See figure 3.

**Figure 2: Bar chart depicting differences in ERG22+ dimension ratings**



**Note:** \*\*\*\* <.0001; \*\*\* < .001, \*\* < .01, \* <.05

**Figure 3: Line chart depicting difference in ERG22+ dimension ratings pre- and post-HII**

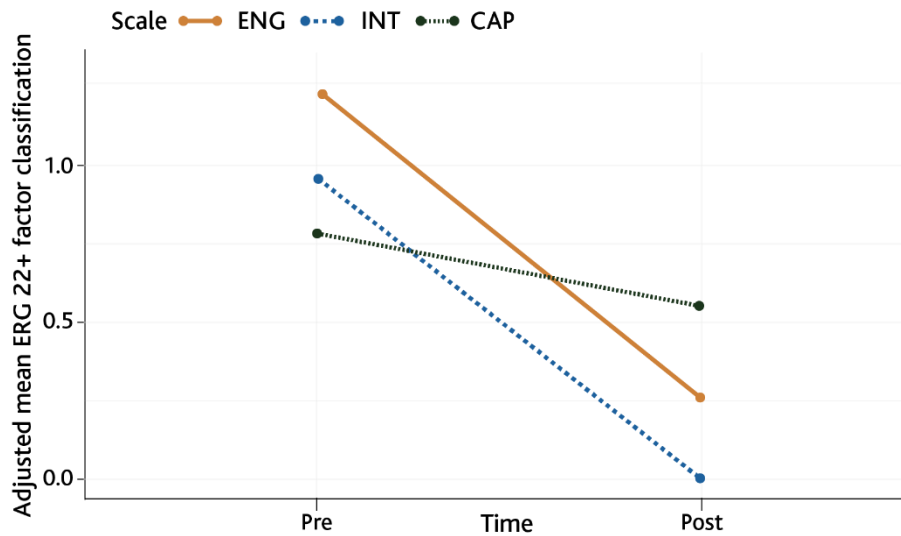


Figure 3 shows the significant decreasing pre-to-post change in *engagement* and *intent* levels, and the smaller pre-to-post effect for *capability*.

The Tukey post-hoc tests confirm this; the EMM<sup>44</sup> size for the pre-to-post effect for *capability* is much smaller at 0.18, albeit still significant in a Tukey test, compared to 0.71 for *engagement* and 0.66 for *intent*. See table 7.

**Table 7: Tukey post-hoc tests for ERG22+ dimensions**

Scale	contrast	estimate	95% CI	SE	df	t	p
Engagement	Pre - Post	0.71	[0.53, 0.88]	0.09	67	8.03**	<.0001
Intent	Pre - Post	0.66	[0.48, 0.84]	0.09	67	7.53**	<.0001
Capability	Pre - Post	0.18	[0.00, 0.35]	0.09	67	2.01*	0.0487

### The OASys Scores

The OASys risk scores were the dependent (outcome) variables. Time (pre vs. post) and scale (OVP vs OGP vs OGRS3) were the predictor (condition) variables.

Four regression models were run, iteratively:

1. The **baseline model**: OASys risk scores alone

<sup>44</sup> Estimated Marginal Means (EMM) – the mean response for each factor, adjusted for any other variables in the model It can be considered a proxy for the effect size.

2. The **time model** adds the predictor of time (pre vs. post) as a condition,
3. The **dimension model** adds the predictor of risk scales to the time model, and
4. The **time:scale model** adds time + scale + time:scale (i.e., the interaction)

To compare two post-hoc ‘contrasts’ within each of the models, ‘pre’ was set as the time reference to gain a comparison with ‘post’; and ‘OGRS3’ was set as the scale reference to gain comparisons with ‘OVP’ and ‘OGP’ scores.

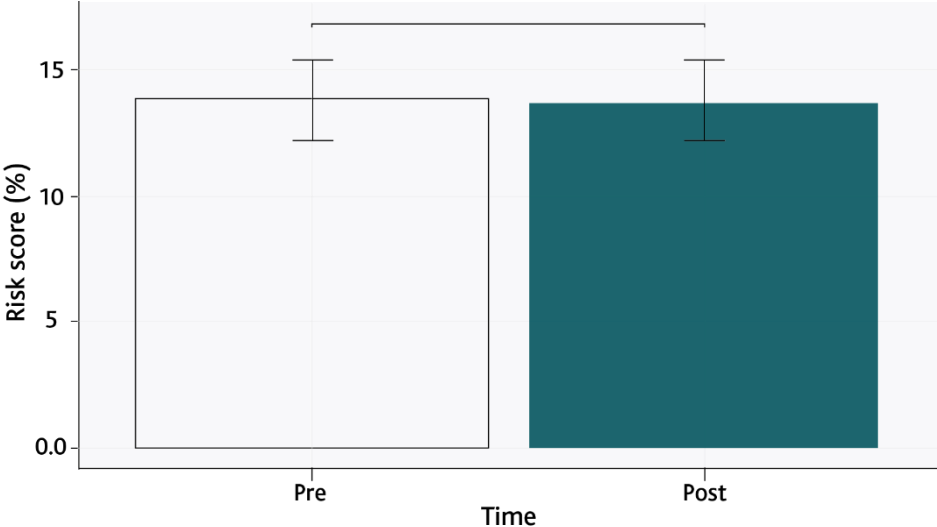
ANOVAs were subsequently used to test each additive to the last to assess whether the new model was a better fit to the data. The results of the ANOVA are summarised in table 8.

**Table 8: Model comparisons for the OASys**

Model	df	AIC	BIC	logLik	L.Ratio	p
Baseline	5	2863.52	2883.72	-1426.76		
Time	6	2865.37	2889.62	-1426.69	0.15	0.7007
Risk	8	2777.74	2810.06	-1380.87	91.64**	<.0001
Time:Risk	10	2780.18	2820.58	-1380.09	1.56	0.4588

As shown in table 8 and illustrated by figure 4 statistically significant main effects for risk ( $\chi^2(8) = 91.64, p < .0001$ ) were found. There were, however, no significant main effects for ‘Time’ ( $\chi^2(8) = 0.15, p = .701$ ), and no statistically significant interaction effects found with the two-way interaction between time and risk ( $\chi^2(10) = 1.56, p = .459$ ). In sum, there was no overall pre-to-post effect on OASys, and no pre-to-post effect per risk score (i.e., OGRS3, OVP or OGP).

**Figure 4: Bar chart depicting difference in overall OASys scores pre- and post-HII**



Upon closer inspection of the contrasts set for the most ‘parsimonious’ model<sup>45</sup> (i.e., the Risk Model), table 9 highlights the interactions responsible for the change in fit.

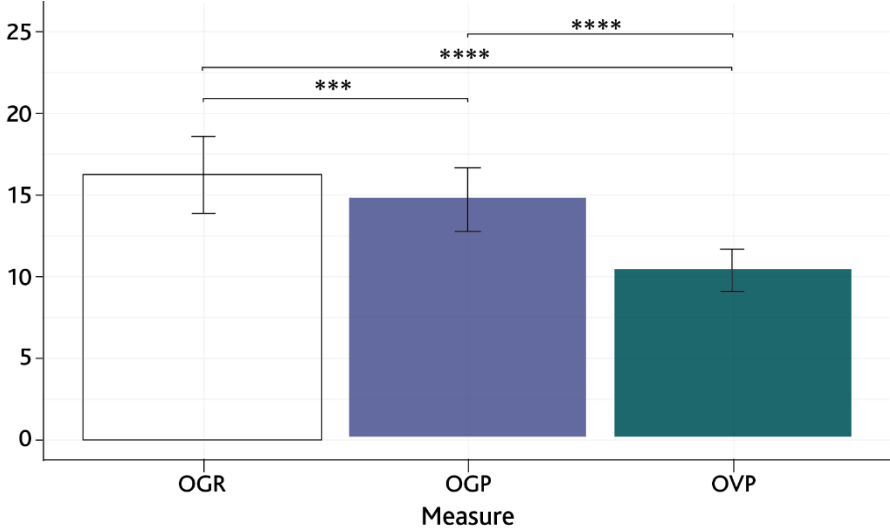
**Table 9: Model comparisons for the OASys risk scales**

	Value	Std.Error	DF	t	p
(Intercept)	15.82	1.26	278	12.54**	<.0001
Timepost (HII)	0.22	0.58	69	0.38	0.703
measureogp	-1.49	0.57	278	-2.60**	0.010
measureovp	-5.71	0.57	278	-9.99**	<.0001

The statistically significant main effect of risk scale demonstrates that OASys scores for the *OVP* scales significantly differ from the *OGRS3* scale (-9.99,  $p < .0001$ ). See Figure 5. The main ‘time’ effect however shows that there is no significant difference between pre- and post-HII OASys scores overall, or between *OGRS3* and *OGP*. See Figure 6.

<sup>45</sup> Linear regression models assume that the residuals of the model are normally distributed.

**Figure 5: Bar chart depicting differences in OASys scale scores**



**Note:** \*\*\*\* <.0001; \*\*\* < .001, \*\* < .01, \* <.05

**Figure 6: Line chart depicting OASys scale scores pre- and post-HII**

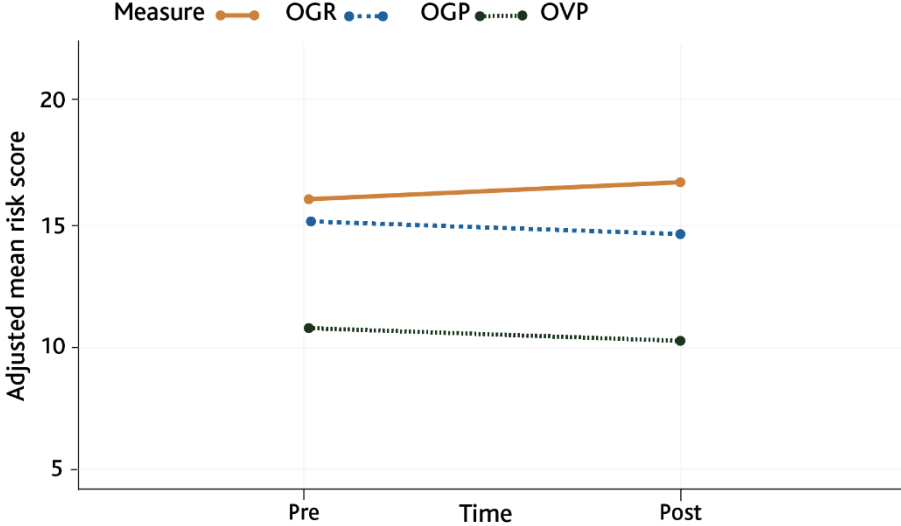


Figure 6 shows that there is negligible decreasing pre-to-post HII change on the OASys OVP and OGP measures, and that there is a slight increasing non-significant pre-to-post effect on the OASys OGRS3 measure.

The Tukey post-hoc tests confirm this; the EMM sizes for the pre-to-post effect for OVP, OGP and OGRS3 is small (at 0.21, 0.16 and -1.04 respectively), none of them significant in the Tukey tests. See Table 7.

**Table 10: Tukey post-hoc tests for the OASys**

Measure	contrast	estimate	95% CI	SE	df	t	p
OGRS3	Pre - Post	-1.04	[-2.8, 0.7]	0.88	69	-1.18	0.242
OGP	Pre - Post	0.16	[-1.6, 1.9]	0.88	69	0.18	0.859
OVP	Pre - Post	0.21	[-1.6, 2.0]	0.88	69	0.24	0.809

**The Extremism Behavioural Indicator (EBI) Measure**

The overall domain point totals as percentages were the dependent (outcome) variables. Time (pre vs. post) and domain (disillusionment vs. identity changes vs. intent vs. skills) were the predictor (condition) variables.

Four regression models were run, iteratively:

1. The **baseline model**: EBI Measure scores alone
2. The **time model** adds the predictor of time (pre vs. post) as a condition,
3. The **dimension model** adds the predictor of domains to the time model, and
4. The **time:scale model** adds time + domain + time:domain (i.e., the interaction)

To compare two post-hoc ‘contrasts’ within each of the models, ‘pre’ was set as the time reference to gain a comparison with ‘post’; and ‘disillusionment’ was set as the domain reference to gain comparisons with ‘identity change’, ‘intent’ and ‘skills’ scores.

ANOVAs were then used to test each additive to the last to assess whether the new model was a better fit to the data. The results of the ANOVA are summarised in **table 11**.

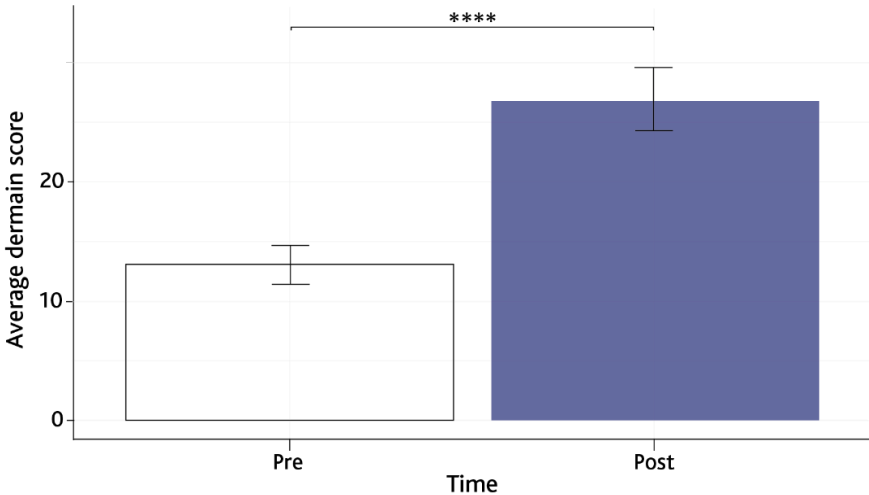
**Table 11: Model comparisons for the EBI Measure**

Model	df	AIC	BIC	logLik	L.Ratio	p
Baseline	5	10267	10292	-5128		
Time	6	10210	10240	-5099	58.8**	<.0001
Domain	9	9749	9794	-4865	467.0**	<.0001
Time:Domain	12	9609	9669	-4792	146.0**	<.0001



As shown in **Table 11** and illustrated by **Figure 7**, statistically significant main effects of assessment time (pre- and post-HII;  $\chi^2(6) = 58.8, p < .0001$ ), and domain ( $\chi^2(9) = 467, p < .0001$ ) were found. A statistically significant two-way interaction between time and domain was also found ( $\chi^2(10) = 146, p < .0001$ ).

**Figure 7: Bar chart depicting difference in EBI Measure scores pre- and post-HII**



**Note:** \*\*\*\* <.0001; \*\*\* < .001, \*\* < .01, \* <.05

Upon closer inspection of the contrasts set for the most ‘parsimonious’ model<sup>46</sup> (i.e., the Time:Domain Model), **Table 12** highlights those interactions responsible for the significant change in fit.

**Table 12: Model comparisons for the EBI Measure domains**

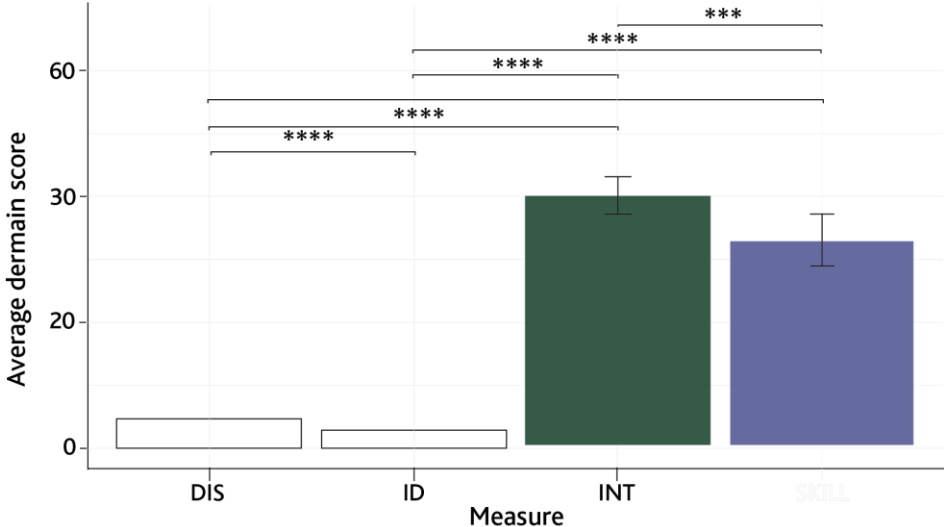
Contrast	Value	Std.Error	DF	t	p
(Intercept)	3.08	1.65	560	1.87	0.062
Timepost (HII)	3.49	2.23	69	1.56	0.122
domainid (Identity Change)	-0.77	2.10	414	-0.37	0.713
Domainint (Intent)	27.71	2.10	414	13.22**	<.0001
Domainskill (Skill)	32.30	2.10	414	5.87**	<.0001
timepost:domainid	-2.86	3.00	414	-0.96	0.336
timepost:domainint	20.43	3.00	414	6.89**	<.0001
timepost:domainskill	30.06	3.00	414	10.14**	<.0001

<sup>46</sup> Linear regression models assume that the residuals of the model are normally distributed.

The significant main ‘domain’ contrast demonstrates that EBI Measure scores for both *intent* and *skill* domains differ statistically significantly from the *disillusionment* domain (13.22,  $p < .0001$ , and 5.87,  $p < .0001$  respectively).

The main ‘time’ contrast shows that there was a not a statistically significant difference between pre- and post-HII EBI Measure scores overall. The ‘domain’ contrasts also show that EBI Measure scores for identity change do not differ statistically significantly from the disillusionment domain. See **Figure 8**. The ‘timepost:domainint’ and ‘timepost:domainskill’ contrasts demonstrate that the pre-to-post effect is statistically significantly different between *disillusionment* and *intent* (6.89,  $p < .0001$ ), and *disillusionment* and *skill* (10.14,  $p < .0001$ ), and the non-statistically significant result for the ‘timepost:domainid’ shows that the pre-to-post effect is not different between *disillusionment* and *identity change* (-0.96,  $p = .336$ ). See **Figure 9**.

**Figure 8: Bar chart depicting differences in EBI Measure domain scoring**



**Note:** \*\*\*\*  $< .0001$ ; \*\*\*  $< .001$ , \*\*  $< .01$ , \*  $< .05$

**Figure 9: Line chart depicting EBI Measure domain scores pre- and post-HII**

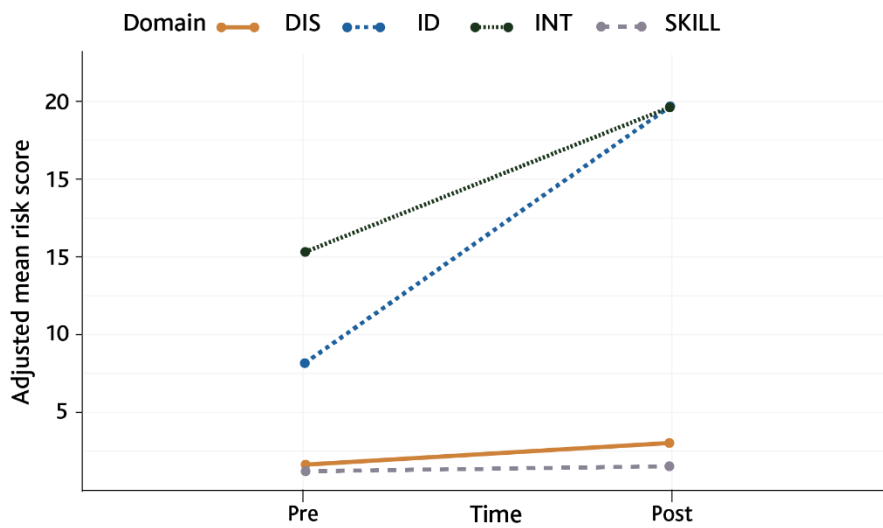


Figure 9 shows the significant positive pre-to-post change for the *intent* and *skills* domains, the smaller non-significant pre-to-post effect on the *disillusionment* domain, and almost no effect pre-to-post-HII *identity change* domain.

The Tukey post-hoc tests confirm this; the EMM size for the pre-to-post effect for *disillusionment* and *identity change* are much smaller at -3.49 and 0.63 respectively, compared to the significantly larger effects of -23.92 for *intent* and -33.55 for *skill*. See Table 12.

**Table 13: Tukey post-hoc tests for the EBI Measure**

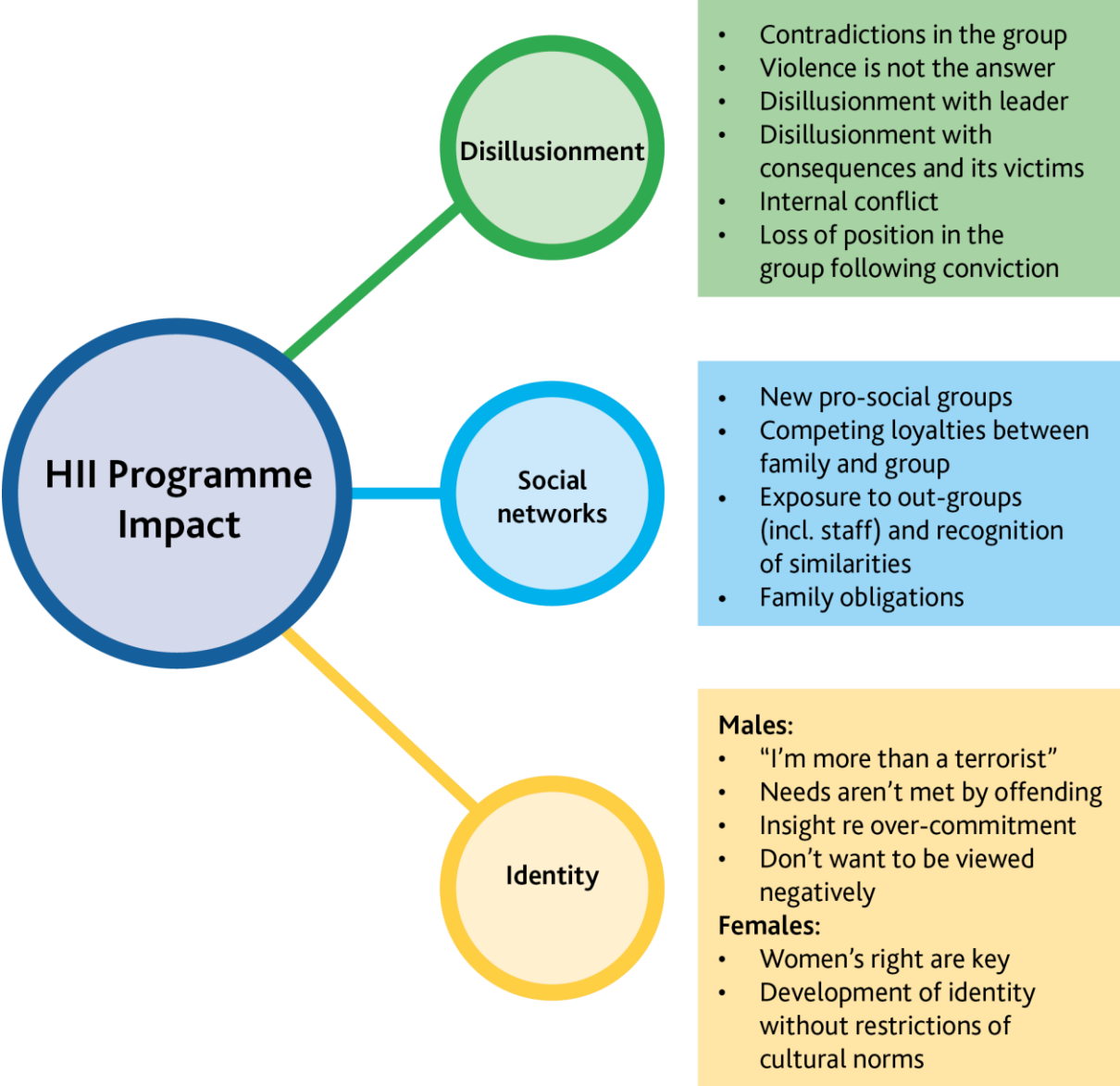
Domain	contrast	estimate	95% CI	SE	df	t	p
Disillusionment	Pre - Post	-3.49	[-7.9, 1.0]	2.2	69	-1.56	0.122
Identity Change	Pre - Post	0.63	[-5.1,3.8]	2.2	69	-0.28	0.779
Intent	Pre - Post	-23.92	[-28.4, -19.5]	2.2	69	-10.87**	<.0001
Skill	Pre - Post	-33.55	[-38.0, -29.1]	2.2	69	-15.05**	<.0001

# Appendix Five

## Thematic map

The participants' journey away from extremism, as demonstrated in the reporting of progress following HII; A thematic map.

Figure 10: Thematic map



## Appendix Six

# Superordinate and Sub Themes from IPA Interviews

The analysis detailed four super-ordinate themes, each with sub themes. These are presented in Table 13. Further extracts relating to each theme are presented in Appendix One.

**Table 14: Recurrent Themes and Sub-Themes**

Super-Ordinate Themes	Sub Themes
Positive Changes	Developing skills
	The HII is a journey of fluctuating feelings
Re-defining Personal Identity	Recognising priorities in life and new identity commitments
	Role Shifts
	Self-Image
Practical Factors	Collaborative relationship with facilitator
	Facilitator qualities
	Wider support
	Future improvements to the HII
	Flexibility and Responsiveness of methods and approaches
Future Hopes	Setting realistic goals
	Disillusionment with extremist group, cause or ideology
	Community re-integration fear