Barriers Influencing Compliance with International Humanitarian Law and Humanitarian Principles among Weapon Bearers in Eastern Democratic Republic of Congo: A Quasi-Experimental Study

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ABSTRACT

Uptake of International Humanitarian Law (IHL) in prolonged armed conflict is influenced by many factors, including knowledge about the laws of armed conflict, leadership, systems, culture and environment. The purpose of this article was to explore individual, system and environmental barriers that affect the uptake of IHL and humanitarian principles amongst weapon bearers in the Eastern Democratic Republic of Congo (DRC). The findings come from the baseline data collection section of a mixed-methods, non-equivalent control group quasi-experimental study that was conducted amongst 286 government-aligned weapon bearers (143 intervention and 143 control), in select locations across North and South Kivu. Quantitative data were collected using structured questionnaires administered by an interviewer. Data analysis was performed using descriptive statistics, including frequencies and percentages. Qualitative data were collected through focus group discussions and key informant interviews. Qualitative data were analysed thematically. Individual barriers were reported to be lack of training in IHL (69.9%), lack of knowledge of IHL (62.9%), low literacy levels (55.2%) and language barriers (51.0%) due to materials being only in French. System barriers included no routine training (83.9%), no IHL training provided prior to deployment (81.5%), poor command enforcement of IHL (68.2%), no repercussions for breaches (66.8%) and lack of legal advisors within the military (62.6%). Environmental barriers included multiple armed groups making it difficult to differentiate between civilians and combatants (69.6%), civilians working with armed groups (61.5%), little trust from the community (56.3%) and lack of security (53.8%). Qualitative data showed how language barriers, lack of accountability and irregular warfare affected the ability to implement humanitarian principles. Overall, it was concluded that there are barriers at a system level to ensure IHL is implemented. Training must be available in an accessible manner, combined with command responsibility, legal advice, accountability and trust from the community. These findings reflect self-reported perceptions at baseline from government-aligned weapon bearers who are accessible. They do not reflect what is happening on the ground nor provide evidence of causation from the intervention.

Keywords: international humanitarian law, humanitarian principles, weapon bearers, compliance barriers, Eastern Democratic Republic of Congo

INTRODUCTION

International humanitarian law (IHL) provides a framework for parties to an armed conflict and aims to reduce human suffering. Minimum protections for those not taking part or no longer participating in hostilities within a non-international armed conflict are provided under Common Article 3 of the 1949 Geneva Conventions. Additional Protocol II and customary international law provide further protection for civilians and other protected persons [9, 10]. Key provisions relate to distinctions, humane treatment, precautions in attack and limits on weapons. The humanitarian principles of humanity, impartiality, neutrality and independence are not tied explicitly to IHL treaties but are mainly used to guide humanitarian work. Respect for these principles is relevant to weapon bearers to allow impartial humanitarian aid, show respect to humanitarian workers and ensure impartiality of humanitarian work.

Despite legal rules being in place, there are factors that will influence behaviour in practice. Research has shown that factors such as conformity to the group, hierarchies, moral disengagement and social influences affect behaviour during conflict [13]. The Roots of Restraint in War research shows that armed groups come in many different forms with varying ways of socialising individuals. Efforts should be made to understand what norms are present and how they are influencing individuals [15]. Research has also been conducted on armed non-state actors and shows that different interpretations can occur within armed groups regarding how humanitarian principles should be applied. It is therefore important not to assume that just because principles are disseminated, they will be adhered to [4]. More recent research has shown that professional identity, organisational culture and culturally meaningful sources are also used to encourage lawful behaviour [16].

Institutional factors are also vital. The International Committee of the Red Cross (ICRC) describe the successful embedding of IHL within organisations as an ongoing process that ensures effective conversion of legal rules into practices, doctrines, education, training, and appropriate enforcement mechanisms [11]. Furthermore, guidance on effectively training IHL in the military emphasizes the importance of training and the use of appropriate pedagogical methods and staff [12]. Evidence from behavioural science suggests that when there are poor social structural factors, low institutional credibility, poor enforcement and few opportunities to practice, knowledge interventions will prove ineffective [2]. This can therefore be seen as the relationship between the individual's capabilities, organizational expectations and contextual factors determining the extent to which IHL is respected.

Considering the Eastern DRC, there are many factors that influence the behaviour of those carrying weapons. The conflict environment includes state forces, pro-government auxiliaries and numerous non-state armed groups. There may be issues surrounding identifying civilians from direct participants in hostilities, ensuring humanitarian access, reporting mechanisms and behaving in accordance with command and legal expectations. However, we cannot assume that those carrying weapons may feel certain obstacles are preventing them from complying.

This article aims to provide evidence on the barriers to compliance that were identified under the fourth objective of a doctoral study assessing a co-designed IHL and humanitarian principles training model. This article will explore the barriers to compliance at the individual, institutional and environmental/community levels amongst weapon bearers in select areas of Eastern DRC. This provides a localised insight into the barriers that need to be overcome to ensure knowledge and positive attitudes towards the law can be implemented into protection behaviours. This does not provide an estimate on how effective the training model will be.

The study aimed to identify: What individual, institutional and environmental/community factors are preventing weapon bearers in selected conflict-affected areas of Eastern DRC from complying with IHL and respecting humanitarian principles??

METHODOLOGY

Study design and setting

The main study used a mixed-methods sequential quasi-experimental design, with nonequivalent intervention and comparison groups [6,14]. This study focuses on the baseline barriers aspect of the fourth objective of the main study. Consequently, we are using the quasi-experimental sampling design from the main study. However, we are making no claims about any treatment effect or changes in barriers.

This study took place in selected areas of North and South Kivu in Eastern DRC. The intervention group consisted of accessible Government-affiliated FARDC and Wazalendo / Volontaires pour la Défense de la Patrie (VDP) personnel. Accessible FARDC and Wazalendo/VDP personnel were selected from the intervention areas of Goma, Karisimbi and Nyiragongo in North Kivu. Accessible Government-affiliated personnel from selected areas in South Kivu were used in the comparison group. These areas were Kadutu, Ibanda and Bagira. Due to accessibility issues, security concerns and the need for neutrality throughout the study, only government-affiliated weapon bearers were used in the study. Non-state adversarial armed groups such as AFC/M23, ADF and Mai-Mai factions were not included in the quantitative sample.

Study population and sampling

Baseline quantitative data were collected from 286 weapon bearers (143 intervention, 143 comparison). This was done using a multi-stage, command-approved sampling strategy. Study sites and sampling units were identified through purposeful sampling. Sampling units had nominal lists that were stratified according to force type and rank category. Individuals were then sampled systematically. Participants were interviewed individually, confidentially and without the direct involvement of commanders. This was due to there being no publicly accessible register of weapon bearers, so permission had to be obtained to gain access to these individuals.

Qualitative methods were conducted to understand contextual reasons behind the barriers. Baseline data were collected via eight focus group discussions (FGD) with weapon bearers (4 in intervention and 4 in comparison arms). Fifteen key informant interviews (KII) were conducted with commanders, P-DDRCS, civil-military coordination and humanitarian actors involved in dialogue with armed actors. Purposeful sampling was used to ensure the sample included a range of different force types, ranks and years of service. Further qualitative activities were undertaken for the endline of this study; however, this article will focus on the findings of barriers.

Data collection instruments and procedures

Quantitative data were collected using a structured questionnaire administered to interviewees. This was developed in Open Data Kit (see reproduced appendix) and asked respondents about their knowledge, attitude, actions and barriers related to IHL. The open-ended question 'What do you think are the main barriers to learning about and complying with humanitarian law?' (see reproduced appendix) was used to gain responses regarding barriers. These responses have been recorded in different categories (individual, institutional and environmental/community). This article will also provide the number and percentage of responses given under each category.

Qualitative data were gathered using Focus Group Discussions (FGD) and Key Informant Interviews (KII). These used a semi-structured discussion guide to explore what factors help or hinder awareness of humanitarian law in protective actions. Factors discussed included structural, social, cultural, institutional and operational influences. The protection protocol within the study ensured personal identifying information and specific details regarding unlawful incidents weren't collected. Interviews and discussions were conducted, ensuring confidentiality. Where appropriate, consent was obtained to record the interview.

Data analysis

Quantitative data were analysed using SPSS Version 27 and R. Frequency and percentage responses were calculated across the overall sample and within the two arms of the study. Chi-square tests were used to compare the proportion of responses to each barrier between the two groups. Unadjusted odds ratios (ORs) and 95% confidence intervals (CI) were calculated. An alpha value <0.05 was considered statistically significant. Inferential statistics have been presented. They provide information on differences between the two study arms at baseline, not the independent effect of each barrier.

Qualitative data were transcribed and translated where necessary. Thematic analysis was conducted. Using a six-stage thematic analysis approach developed by Braun and Clarke [5] was undertaken. Quantitative and qualitative data were combined to provide an understanding of how individual learning barriers, institutional factors and community/conflict factors interacted. Quotations from participants were included in relation to their role and data collection method. No identifying information was included.

Ethical considerations

Ethical approval was sought from GLUSERC (The Great Lakes University of Kisumu Scientific and Ethical Review Committee) and the appropriate national research ethics body within the DRC. A response will be required for the ethical approval process. Informed consent was obtained, and participants agreed to participate voluntarily. The research did not ask participants to answer any questions they were uncomfortable with, and

the data were anonymised and kept secure. Interviews were carried out without commanders present to ensure the participants would not feel pressured into answering. They were also not asked to divulge any specific illegal acts. Additionally, no personal research information was passed on to the military command.[7].

RESULTS

Individual-level barriers

The top-most individual-level barrier was lack of training in IHL (69.9%, n=200). Of these, 102 individuals (71.3%) were in the intervention group whilst 98 (68.5%) were in the comparison group. A further 180 (62.9%) commented that they lacked sufficient knowledge of IHL. Over half of respondents stated they had low literacy levels (55.2%) and language barriers, as French was the only language provided (51.0%). Other common barriers cited were fear of punishment if they did report a violation (48.3%), personal financial issues or pressure to survive (45.8%) and unit loyalty or pressure from peers (43.7%). No individual-level barriers showed significant differences between groups. For example, lack of training showed $\chi^2 = 0.26$ (p=.610) OR = 1.14 (95% CI 0.69 to 1.88). Likewise, insufficient knowledge showed $\chi^2 = 0.06$ (p=.808) OR = 0.94 (95% CI 0.59 to 1.51). Overall p-values ranged from .479 to .808 across the 10 barriers, and all 95% confidence intervals contained 1.00 (Table 1).

Table 1. Individual-level barriers and baseline between-arm inferential comparisons (N = 286)

Barrier	**Intervention (n = 143)**	**Comparison (n = 143)**	**Total (N = 286)**	**χ^2 (p)**	**OR (95% CI)**
Lack of training on IHL	102 (71.3)	98 (68.5)	200 (69.9)	0.26 (.610)	1.14 (0.69–1.88)
Lack of knowledge of IHL rules	89 (62.2)	91 (63.6)	180 (62.9)	0.06 (.808)	0.94 (0.59–1.51)
Low literacy limiting comprehension	76 (53.1)	82 (57.3)	158 (55.2)	0.50 (.479)	0.85 (0.53–1.36)
Language barrier (French-only materials)	71 (49.7)	75 (52.4)	146 (51.0)	0.21 (.647)	0.90 (0.56–1.43)
Fear of punishment for reporting violations	67 (46.9)	71 (49.7)	138 (48.3)	0.24 (.626)	0.89 (0.56–1.42)
Personal financial hardship / survival pressure	63 (44.1)	68 (47.6)	131 (45.8)	0.35 (.554)	0.87 (0.54–1.39)
Loyalty to unit / peer pressure	61 (42.7)	64 (44.8)	125 (43.7)	0.12 (.729)	0.92 (0.57–1.48)
Cynicism about enforcement of IHL	55 (38.5)	59 (41.3)	114 (39.9)	0.24 (.626)	0.89 (0.55–1.44)
Moral disengagement / normalization of violence	54 (37.8)	58 (40.6)	112 (39.2)	0.24 (.626)	0.89 (0.55–1.44)
Perceived irrelevance of IHL to local conflict	48 (33.6)	52 (36.4)	100 (35.0)	0.24 (.626)	0.89 (0.54–1.45)

Note. Values are n (%). χ^2 denotes the Pearson chi-square statistic; p values are two-sided. ORs are unadjusted odds ratios for reporting the barrier in the intervention group relative to the comparison group, with 95% confidence intervals. All between-arm comparisons were non-significant ($p > .05$), and all confidence intervals included 1.00.

Participants' narratives illustrated that lack of training translated into uncertainty during operational decisions. A FARDC rank-and-file soldier explained that training had focused on tactics rather than the law:

"I have been a soldier for seven years. In all that time, nobody has ever sat me down and explained the laws of war. I know I should not kill civilians, but I do not know the rules about prisoners, or hospitals, or what to do when the enemy hides in the village. The training we receive is about shooting and tactics, not about the law."

-FARDC rank-and-file soldier, intervention group, open-ended questionnaire

Qualitative findings indicated issues with language and literacy. A soldier mentioned difficulties reading manuals that were written in French and suggested training should be given in Kiswahili and with visual aids. The quantitative results showed that 55.2% felt they had literacy issues and 51.0% felt they had issues associated with language. Individual barriers such as fear of speaking up, pressure to survive and loyalty to peers meant that even if a weapon bearer understood rules, they may not want to or would be unable to comply with them.

Institutional and organizational barriers

The most commonly cited institutional barriers were lack of refreshers (240 respondents; 83.9%) and no inclusion in pre-service training (81.5%). Over two-thirds felt there was poor implementation of IHL by commanders (68.2%) and no disciplinary action for violators (66.8%). The lack of access to legal advisors (62.6%) and prioritising tasks over IHL requirements (55.6%) were also cited. Resource issues (51.7%). There was no significant difference across any of the institutional barriers. There was no significant difference in responses to lack of refreshers ($\chi 2= \chi^2 = 0.10$; p=.752; OR=OR = 1.11; 95%CI=0.61 to 2.02) or lack of inclusion in pre-service training ($\chi 2=\chi^2 = 0.23$; p=.632; OR=OR = 1.14; 95%CI=0.65 to 2.01). Overall p values ranged from .626 to .752, and all 95% CI included 1.00 (Table 2).

Table 2. Institutional and organizational barriers and baseline between-arm inferential comparisons (N = 286)

Barrier	**Intervention (n = 143)**	**Comparison (n = 143)**	**Total (N = 286)**	**χ^2 (p)**	**OR (95% CI)**
No regular refresher training on IHL	121 (84.6)	119 (83.2)	240 (83.9)	0.10 (.752)	1.11 (0.61–2.02)
Absence of IHL in pre-service training	118 (82.5)	115 (80.4)	233 (81.5)	0.23 (.632)	1.14 (0.65–2.01)
Weak command enforcement of IHL rules	96 (67.1)	99 (69.2)	195 (68.2)	0.14 (.708)	0.91 (0.56–1.48)
Absence of disciplinary consequences for violations	94 (65.7)	97 (67.8)	191 (66.8)	0.14 (.708)	0.91 (0.56–1.48)
Lack of military legal advisers (JAG)	88 (61.5)	91 (63.6)	179 (62.6)	0.14 (.708)	0.91 (0.56–1.48)
Competing operational priorities override IHL	78 (54.5)	81 (56.6)	159 (55.6)	0.12 (.729)	0.92 (0.57–1.48)
Resource constraints (transport, materials, venue)	72 (50.3)	76 (53.1)	148 (51.7)	0.21 (.647)	0.90 (0.56–1.43)
High personnel turnover / rotation	65 (45.5)	69 (48.3)	134 (46.9)	0.21 (.647)	0.90 (0.56–1.43)

Political interference in military justice	58 (40.6)	62 (43.4)	120 (42.0)	0.24 (.626)	0.89 (0.55–1.44)
Corruption undermining accountability	52 (36.4)	55 (38.5)	107 (37.4)	0.12 (.729)	0.92 (0.57–1.48)

Note. Values are n (%). χ^2 denotes the Pearson chi-square statistic; p values are two-sided. ORs are unadjusted odds ratios for reporting the barrier in the intervention group relative to the comparison group, with 95% confidence intervals. All between-arm comparisons were non-significant ($p > .05$), and all confidence intervals included 1.00.

Command culture and selective enforcement were also found to be a factor. Commanders within the FARDC had knowledge of alleged rule violations but often did not act due to personal/regional loyalty and cost concerns. This was summarised as:

"This is not a problem of knowledge. This is a problem of courage. The commander lacks the courage to enforce the law against his own."

-FARDC mid-level commander, intervention group, focus group discussion

The findings indicate that it can be difficult to ensure the staff member complies with the regulations. If there is infrequent refresher training, no legal advice, uncertainty around the disciplinary process and a strong focus on operations, the institution may not give consistent messages about acting legally.

Environmental and community-level barriers

The most commonly cited environmental barrier was an increase in armed groups causing confusion between civilians and combatants (199/286; 69.6%). Other environmental barriers included civilian support to armed groups (61.5%), lack of trust in the security forces in the community (56.3%), and lack of protection, meaning humanitarian aid cannot be provided (53.8%). Approximately half of respondents indicated that there were issues with competition for resources such as land and minerals (50.7%) and a lack of safe reporting channels for civilians (49.3%). There was no statistical difference between these factors, as shown by the t-tests. An increase in armed groups produced $\chi^2 = 0.15$ (p=.699) [OR: 0.90 (95% CI: 0.55-1.48)]. Similarly, civilian support produced $\chi^2 = 0.06$ (p=.808) [OR: OR = 0.94 (95% CI: 0.59-1.51)]. All p-values ranged from .699 to .823 across all 10 environmental/community factors. All 95% CIs included 1.00 (Table 3).

Table 3. Environmental and community-level barriers and baseline between-arm inferential comparisons (N = 286)

Barrier	**Intervention (n = 143)**	**Comparison (n = 143)**	**Total (N = 286)**	**χ^2 (p)**	**OR (95% CI)**
Proliferation of armed groups blurring civilian status	98 (68.5)	101 (70.6)	199 (69.6)	0.15 (.699)	0.90 (0.55–1.48)
Civilian collaboration with armed groups	87 (60.8)	89 (62.2)	176 (61.5)	0.06 (.808)	0.94 (0.59–1.51)
Lack of community trust in security forces	79 (55.2)	82 (57.3)	161 (56.3)	0.12 (.729)	0.92 (0.57–1.48)
Insecurity limiting humanitarian access	76 (53.1)	78 (54.5)	154 (53.8)	0.05 (.823)	0.95 (0.59–1.52)

Resource competition (land, minerals)	71 (49.7)	74 (51.7)	145 (50.7)	0.12 (.729)	0.92 (0.57–1.48)
Absence of safe reporting channels for civilians	69 (48.3)	72 (50.3)	141 (49.3)	0.10 (.752)	0.92 (0.58–1.47)
Cross-border movement of armed actors	64 (44.8)	67 (46.9)	131 (45.8)	0.12 (.729)	0.92 (0.57–1.48)
Impunity for violations by non-state armed groups	62 (43.4)	65 (45.5)	127 (44.4)	0.12 (.729)	0.92 (0.57–1.48)
Cultural norms condoning violence against women	58 (40.6)	61 (42.7)	119 (41.6)	0.12 (.729)	0.92 (0.57–1.48)
Weak state presence in remote areas	55 (38.5)	58 (40.6)	113 (39.5)	0.12 (.729)	0.92 (0.57–1.48)

Note. Values are n (%). χ^2 denotes the Pearson chi-square statistic; p values are two-sided. ORs are unadjusted odds ratios for reporting the barrier in the intervention group relative to the comparison group, with 95% confidence intervals. All between-arm comparisons were non-significant ($p > .05$), and all confidence intervals included 1.00.

A FARDC rank-and-file soldier described the operational uncertainty created by irregular warfare:

"The enemy does not wear a uniform. He is the farmer in the morning, the trader in the afternoon, and the fighter at night. So when we enter the village, who is the civilian and who is the enemy?"

- FARDC rank-and-file soldier, intervention group, focus group discussion

This is a reflection on how difficult it is to apply the rule of distinction in reality rather than a change to the law. Civilians are still protected from attack unless they are directly participating in hostilities. Where there is doubt there must still be reasonable steps taken to avoid attacking civilians. This shows that practical guidance is needed at both a training and command level to enable personnel to apply these rules.

Baseline comparison between study arms

None of the individual, institutional or environmental barriers were significantly different at baseline. The individual barriers showed no significant difference between the two study arms with χ 2 ranging from 0.06 to 0.50 (p= .479-.808). The odds ratios ranged from 0.85-1.14. Institutional barriers showed no significant difference between the two study arms with χ 2 ranging from 0.10 to 0.24 (p= .626-.752). Odds ratios ranged from 0.89-1.14. Environmental and community barriers showed no significant difference between the two study arms with χ 2 ranging from 0.05 to 0.15 (p= .699-.823). Odds ratios ranged from 0.90-0.95. All p-values were above 0.05 and 95% CIs included 1.00. This suggests the two arms were comparable with regards to the barriers. It does not mean that these were unimportant or had no impact on compliance. The odds ratios represent the odds of reporting a barrier between the two study arms and have not been adjusted to represent a causal relationship.

DISCUSSION

The findings highlight that there are multiple factors preventing adherence to IHL amongst the bearers of weapons in Eastern DRC. While there was a high level of issues relating to lack of training and knowledge, approximately four out of five respondents said they did not receive refreshers or training before service. Approximately two-thirds also said there was a lack of enforcement through commanding officers and no repercussions. In addition, the lack of trust in the community and the fragmented nature of armed groups have

caused problems for bearers of weapons to make legal decisions. This supports the idea that the reason for non-adherence is due to the way in which laws are embedded in organisations [11, 13, 15].

Training deficits, literacy and meaningful access to legal knowledge

The prominence of inadequate IHL training and knowledge indicates that many weapon bearers did not perceive themselves as having received sufficient preparation to apply relevant rules. Additional qualitative data also revealed that when training materials are presented to individuals who do not understand the language used due to their low levels of literacy, this can cause the information to appear unavailable to them. Therefore, consideration should be given not just to whether training was provided, but whether it was understandable, memorable and applicable to the personnel using the training in their own languages and formats. The case study supports the use of practical methods such as verbal training, visual resources, scenario-based training, and using terms that are understood in the locality.

The importance of making training available can be found within advice on providing effective training. This highlights the importance of appropriate methods and personnel to deliver training, and incorporating IHL into professional military practice [12]. However, whilst training should be made relevant to the situation, this should not compromise the legal aspect. Using examples and language that make sense to those in the locality can aid understanding. However, it must still be ensured that this does not reduce the level of protection that the law provides and should not suggest that local customs or tactics take precedence over IHL. The law should be seen as a baseline, and examples should be used that make sense to those in the locality to help explain how it applies within specific situations

Command, accountability and institutional integration

The most prominent institutional findings relate to ongoing training and command discipline. Over 80% of respondents stated there was no ongoing training provided, nor was IHL taught within pre-service training. This could indicate that there is a lack of institutionalisation; legal knowledge is not being incorporated into their recruitment and initial training practices, nor are they providing training for individuals to utilise this knowledge in operational environments and within their professional development. The ICRC have adopted an integrated approach to ensuring compliance which includes doctrine, education, training, resources and discipline [11]. A lack of training to provide guidance in operational environments, legal advice and consistency in discipline can create an environment that does not encourage weapon bearers to follow the law.

A lack of command discipline was highlighted. Qualitative responses from a mid-level commander indicated that legal rules would be seen as untrustworthy due to inconsistent discipline, loyalty and a reluctance to challenge colleagues. This is reflected in research which highlighted the role of hierarchy, group identity and moral disengagement during conflict [13]. This is also reflected in further research which highlights the importance of professional identity, military culture and internal rules in influencing whether individuals understand IHL as part of the institution's standards [16]. Training should be provided to commanders to help them provide legal orders, monitor discipline and deal with any accusations fairly.

It was also identified that 62.6% had no military legal advisors. There needs to be legal advisors available to those asking questions. There should be clear processes in place to allow individuals to ask for legal advice, handle detainees, plan operations and report any suspected violations. This will help individuals utilise their legal obligations under pressure. Command responsibility and disciplinary measures should be clearly explained.

Operational complexity, civilian relations and humanitarian access

The most frequently cited environmental barrier was the lack of clarity between civil and combatant in an irregular warfare environment. The soldier’s statement reflected the conflict created between operational security requirements and the requirement to respect the principle of distinction. This is a key legal principle within both international and non-international armed conflict [8]. These findings demonstrate the need for understanding of distinction, precautionary measures and protection of the civilian population. Training should use realistic scenarios explaining the legal tests for distinction and provide realistic precautionary measures.

The second most frequently cited was the perception that civilians were working with armed groups. If not properly trained to understand the legal position, this may lead to a generalised suspicion. If they are identified as being part of the community, have family ties, live in areas controlled by an armed group or are presumed to be sympathetic, then this does not automatically make them lawful targets. This needs to be considered during operational decision-making based upon the law.

The lack of trust from the community and feelings of insecurity resulting in limited humanitarian access demonstrates that the relationship between security forces, civilians and humanitarian organisations can impact upon the practical aspects of protection. Trust will impact whether civilians will come forward to report any threat. Humanitarian access will depend on respect for the principles of humanity, impartiality, neutrality and independence. Protection of humanitarian staff and operations under the law. Whilst this study does not show that there was any violation due to a lack of trust, it does show that this is perceived as a contextual barrier. This may reduce cooperation.

Interpreting barriers through behavioural and organizational theory

These findings align with the principles of Social Cognitive Theory which suggests that behaviour is a result of triadic reciprocal determinism between individual, behavioural and environmental factors [3]. A lack of knowledge and low literacy reflects individual capability, peer pressure and unit loyalty reflects social factors whilst command enforcement, legal advice and resources reflect environmental factors. These findings can also be interpreted through the lens of the Theory of Planned Behaviour. If perceived behavioural control is low or if subjective norms suggest that non-compliance will be accepted or rewarded then positive attitudes may not lead to behaviour change [1]. This is demonstrated in the results as there were a large number of low command enforcement and low reporting safety factors.

This can also be seen more generally, as increasing individual knowledge has been shown to be less effective than increasing institutional reliability, penalties, social norms and accessibility [2]. The results found in this study show that due to a lack of training, poor leadership and an insecure environment, effective methods to increase compliance should address all of these issues simultaneously. The results therefore help to build an understanding that compliance with IHL is a systems issue.

Implications for policy and practice

IHL should be incorporated within pre-service training and refreshed on a regular basis within units. The method should focus on using terminology which can be easily understood by personnel using a combination of verbal, visual, hands-on and situational learning. Military and auxiliary command structures should ensure that command lines are clear, supervisory practices are consistent, and there are credible, impartial and fair disciplinary processes to address suspicion of breaches. Accessible legal advisors or focal points should be available to answer operationally based legal questions and help build up clear SOPs.

A safe, confidential and non-retaliatory reporting system should be in place with easy access to report. Civilian protection and humanitarian access should be combined with engagement with communities to build trust, whilst maintaining independent, neutral humanitarian principles. High turnover of personnel and limited resources suggests training plans should consider unit turnover, operational requirements and availability of resources, transportation and suitable training areas. These factors are complementary, and training alone is unlikely to overcome challenges with command, resources and disciplinary processes [11, 2].

Study limitations

There are some factors which should be considered as limitations. Firstly, the data was self-reported and therefore could be influenced by factors such as recall bias, social desirability and fear of providing negative feedback on command structures. The barriers identified should not be taken as true examples of violations but should be seen as perceived barriers. Secondly, the quantitative data were collected from government-affiliated FARDC personnel who were easily accessible and from certain areas of North and South Kivu within the Wazalendo/VDP auxiliary group. This excludes non-state armed groups, meaning the findings can't be

generalised. Thirdly, the intervention and control arms were based within different provinces, meaning there may still be confounding factors.

CONCLUSION

Compliance with IHL amongst weapon bearers in the Eastern DRC was found to be complex and was influenced by a variety of individual, institutional and environmental factors. Individual factors included lack of training and knowledge; poor literacy levels, language barriers; a fear of reporting; and peer pressure. Institutional factors were most evident where there was a lack of refresher/pre-service training; poor enforcement of command; few disciplinary actions; and poor access to legal advisors. Environmental factors included an increase in armed groups; perceived collusion with civilians; poor trust within communities; and lack of security to allow access to humanitarian actors.

To improve compliance, a multifactorial approach is needed. Training should be accessible and regular within the context but should also be supported by strong leadership; clear legal guidance; fair systems of accountability; safe reporting processes; and positive relationships with communities and humanitarian actors. As this evidence is based on self-reported baseline views from accessible pro-government forces, further longitudinal and observational research is needed to understand if these factors will lead to long-term behaviour change.

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Conflict Of Interest

The author maintained impartiality and neutrality, and no member of the research team held a role within the military, auxiliary, or humanitarian actors engaged as key informants.

Ethics Approval And Consent To Participate

Ethical approval was sought from the Great Lakes University of Kisumu Scientific and Ethical Review Committee (GLUSERC) and the relevant national research ethics authority in the Democratic Republic of the Congo. Written informed consent was obtained from all participants before data collection. Consent information was made available in French, Kiswahili, Kinyarwanda, and Mashi as appropriate, and separate permission was sought for audio recording where applicable. Participation was voluntary, and confidentiality safeguards were applied throughout the study.

Consent For Publication

Not applicable. The article does not report identifiable personal information. Participant quotations are attributed only to broad role and study-context descriptors, consistent with the confidentiality safeguards described.

Data Availability

The underlying data are not publicly available because they include sensitive information collected from weapon bearers in a conflict-affected setting and are subject to confidentiality and security safeguards.

Author Contributions

Thierry Mugisho Byandi: Conceptualization, Methodology, Data acquisition, Writing -original draft. Prof. Leo Juma Ogallo, Dr Kennedy Indembukhani: Validation, review, and editing.

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