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Stakeholder Perspectives on Pre-Employment Assessments and Early Intervention in the Australian Meat Processing Industry: A Qualitative Descriptive Study

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Abstract

Objectives:

To examine how pre-employment assessments (PEAs) and early intervention are perceived by organisational stakeholders to function as exposure control mechanisms shaping hazard recognition, reporting, triage, and task allocation in the Australian meat processing industry.

Methods:

Semi-structured interviews were conducted with 15 managers, supervisors, and safety staff across two meat processing facilities. Data were analysed using reflexive thematic analysis to explore organisational, communication, and cultural factors influencing the implementation and use of PEAs.

Results:

Participants perceived that PEAs supported workforce readiness and job–task matching by informing placement decisions and early accommodations. Their effectiveness was viewed as dependent on clear communication, timely feedback, and culturally responsive delivery processes. Stakeholders identified language barriers, inconsistent supervisory practices, and unclear assessment purpose as factors that could delay reporting, triage, and task modification. Participants also suggested that cognitive and behavioural considerations may enhance future assessment processes when used to support safe task allocation and worker accommodation.

Conclusion:

Stakeholders viewed PEAs as organisational tools that may support reporting, task allocation, and work ability when embedded within effective communication, feedback, and early intervention systems. These findings suggest that PEAs function as secondary organisational controls that complement, rather than replace, broader hazard control and injury prevention strategies within high-risk production environments.

1. Background

The Australian meat-processing industry is a major manufacturing sector employing more than 130,000 workers and contributing substantially to regional economies through employment, export earnings, and food production. It operates within one of Australia's most hazardous occupational environments, characterised by high line-speed production, repetitive forceful tasks, and intensive manual handling demands (1–3).

These risks translate into elevated rates of work-related musculoskeletal injury and reduced work ability, underscoring the need for effective upstream prevention and early intervention strategies (2–4). Organisational factors, including workplace culture, production pressures, and trust in reporting systems, may also influence reporting behaviours, help-seeking, and work ability. Such factors may affect psychological safety, workers' willingness to report symptoms, and access to workplace support before injuries progress. These considerations suggest that prevention is influenced not only by physical exposures but also by organisational systems that support recognition, reporting, triage, and task control (1, 4).

In response, organisations have incorporated pre-employment assessments (PEAs) into workforce management and injury prevention programs to better match new hires to task demands and reduce time at risk. Within occupational rehabilitation contexts, functional capacity evaluations have been associated with lower musculoskeletal injury rates and compensation costs in some occupational settings and, when tailored to job-specific exposure profiles, contribute to preventing injury, illness, and sick leave (4–6). By informing earlier task modification and more appropriate job placement, PEAs operate as organisational controls for maintaining work ability in high-demand environments. Early intervention complements PEAs by enabling faster symptom reporting, triage, and task modification, reducing progression toward work disability (4, 6, 7). Importantly, PEAs are examined in this study as organisational processes that interact with early reporting, triage, and task-allocation systems, not as substitutes for job redesign or primary injury-prevention strategies in high-risk production environments.

Beyond workplace injury prevention, the maintenance of work ability has important public health implications. Work disability is associated with poorer physical and mental health, social exclusion, reduced workforce participation, and increased economic burden for individuals, employers, and health systems (8). Understanding how workplace systems support early reporting, accommodation, and intervention may therefore contribute to broader public health goals relating to healthy work, workforce participation, and health equity (5, 6, 9)

Most research evaluating PEAs has focused on quantitative outcomes, including injury rates, compensation claims, absenteeism, and return-to-work measures (5, 6). While these studies provide important evidence regarding effectiveness, they offer limited insight into how PEAs are operationalised within organisational systems or how communication processes, reporting pathways, supervisory practices, and early intervention mechanisms influence their implementation in everyday work settings. This limitation is particularly relevant in culturally diverse, high-risk industries such as meat processing, where work ability is shaped not only by physical job demands but also by organisational structures, communication systems, psychosocial working conditions, and access to workplace support (10, 11). Emerging research suggests that factors such as psychological safety, trust, stigma, and help-seeking behaviours may influence workers’ willingness to report symptoms, access support, and engage with early intervention processes, yet these organisational mechanisms remain underexplored within the PEA literature (11, 12).

Accordingly, this study examined how organisational stakeholders perceive PEAs and early intervention to influence hazard recognition, reporting, triage, and task allocation within meat-processing workplaces. Specifically, the study explored the organisational mechanisms through which PEAs may influence the exposure pathway (recognition → reporting → triage → task control) and the implications of these processes for work ability, workforce inclusion, and psychological safety.

2. Methods

2.1 Study design and participants

A qualitative descriptive design was used to explore organisational stakeholders' experiences and perceptions of PEAs and early intervention within the Australian meat processing industry. Qualitative descriptive research is well suited to examining organisational practices and workplace processes while remaining close to participants' reported experiences (13, 14). Consistent with this approach, the study sought to understand how participants perceived PEAs and early intervention to function within organisational systems rather than to determine their effectiveness in reducing workplace injuries.

Semi-structured, face-to-face interviews were conducted with managers, supervisors, and safety officers from two meat processing facilities. Two facilities from the same organisation were selected because they differed in production scale and workforce composition, allowing exploration of stakeholder perspectives across different operational contexts while operating under the same organisational policies and procedures.

The sample of 15 participants provided sufficient variation in organisational roles and experiences to address the study objectives and support meaningful thematic development.

Eligible participants were identified based on their involvement in administering, interpreting, or operationalising PEAs or early intervention processes. Participation was voluntary, and eligible stakeholders were invited to participate following information about the study and its purpose.

This included operational supervisors, site-level safety personnel, and Human Resource/training staff. The sampling strategy aimed to reflect a range of organisational roles and facility sizes to capture diverse operational contexts.

Recruitment occurred between January 2025 and August 2025 across two meat processing facilities. During this period, 35 stakeholders were identified as eligible based on their involvement in PEAs or early intervention. Of the 35 eligible stakeholders identified, 15 participants consented and completed interviews, with no withdrawals or dropouts.

The participating facilities differed in size and production profile. One site employed approximately 150–300 workers and focused primarily on boning, trimming, and packing operations, while the second site employed more than 500 workers across multiple production lines including slaughter, processing, and

cold-storage tasks. Both sites employed culturally and linguistically diverse (CALD) workforces, with a substantial proportion of workers from CALD backgrounds and varying levels of English proficiency. PEAs were operationalised as mandatory functional assessments conducted prior to placement, with results communicated to safety, HR, and supervisory staff to inform placement and early task modification.

Of the 35 eligible stakeholders identified, 20 did not participate, primarily due to time constraints, workload pressures, or non-response. Consequently, the potential for non-response bias cannot be excluded. It is possible that perspectives critical of PEAs or organisational safety practices are under-represented, as individuals experiencing greater dissatisfaction or organisational pressures may have been less likely to participate. As such, the findings may disproportionately reflect the perspectives of organisational stakeholders who were more engaged with, or supportive of, existing PEA and safety processes.

Recruitment was facilitated through professional networks and industry contacts. The study was conducted in accordance with the Declaration of Helsinki (15). Ethics approval (Approval No. blinded for review) was obtained from a university ethics committee prior to the commencement of data collection, with all participants providing verbal informed consent.

2.2 Data collection

Interviews followed a semi-structured guide that explored participants' experiences and perceptions of PEAs and early intervention processes, including their perceived influence on safety practices, workplace culture, reporting behaviours, implementation challenges, and workforce needs. This approach enabled in-depth exploration of stakeholder perspectives and the capturing of contextual nuances not easily identified through quantitative methods.

The interview guide also incorporated questions focused on organisational exposure pathways, specifically hazard recognition, symptom reporting, triage processes, and task allocation. These questions were designed to explore how participants perceived organisational systems, communication practices, and supervisory actions to influence early risk identification, reporting, and response.

Each interview lasted between 30 and 60 minutes, was conducted in person, and audio-recorded. All participants provided informed consent prior to the commencement of any research activity. Anonymity was maintained through pseudonyms. Interview transcripts were not returned to participants for comment or correction, and participant checking was not undertaken.

To support consistency in data collection, all interviews were conducted by the same interviewer using a semi-structured interview guide and consistent probing prompts. This ensured that concepts such as work ability, exposure control, reporting, and early intervention were explored across participants while allowing flexibility to examine issues relevant to individual organisational contexts.

2.3 Data analysis

Data were transcribed verbatim and imported into NVivo 12 (16) to assist with the systematic organisation and management of the dataset. Thematic analysis was conducted following Braun and Clarke's six-phase reflexive framework (2006) (17). This process involved: (1) familiarisation through repeated reading of transcripts; (2) generation of initial codes capturing meaningful features of the data; (3) collating codes into potential themes; (4) reviewing themes against coded extracts and the dataset as a whole; (5) defining and naming themes; and (6) producing the report by selecting illustrative extracts and situating themes in relation to the research questions and existing literature (17).

Coding followed a predominantly inductive and reflexive analytic logic, with codes and themes developed from patterns arising across participant accounts rather than being pre-specified. Initial coding was conducted by the first author, with theme development and interpretation discussed during regular peer debriefing sessions with the research team.

The organisational exposure pathway (recognition → reporting → triage → task control) served as a sensitising concept, informing analytic attention during later stages of theme refinement and interpretation rather than constraining initial code generation. This allowed the analysis to remain grounded in participants' accounts while maintaining coherence with the study's organisational exposure-control focus.

For example, interview extracts describing delays in task modification due to unclear assessment feedback were initially coded as uncertain communication and delayed adjustment. These codes informed a subtheme relating to feedback loops shaping early triage, which was subsequently situated within the broader theme Training, communication, and feedback, and interpreted in relation to the triage and task-control stages of the exposure pathway. This iterative movement between data, codes, subthemes, and interpretive framing supported analytic transparency.

To enhance rigour, coding was iterative and reflexive, with repeated engagement across transcripts to identify both shared patterns and variation across organisational roles and sites. Guidance from Jowsey, Deng, and Weller (18) informed methodological transparency and consistency, particularly in relation to theme development and refinement. Regular analytic discussions with the research team supported reflexive interrogation of assumptions and interpretations, while maintaining an explicit audit trail strengthened trustworthiness. Attention was given to distinguishing participants' perceptions of PEA effectiveness from evidence of actual injury prevention outcomes, ensuring that interpretations remained aligned with the qualitative aims of the study.

Given ongoing debate regarding the concept of data saturation within reflexive thematic analysis, sufficiency was operationalised pragmatically. Data collection ceased when the dataset was judged to provide sufficient depth and variation to address the research questions concerning organisational mechanisms associated with PEAs and early intervention. By the final interviews, additional data were no longer substantially extending the developing thematic interpretation, and the dataset was considered adequate to support coherent and meaningful theme development (18).

Central concepts such as work ability, hazard recognition, reporting confidence, and exposure control mechanisms were informed by the occupational rehabilitation and organisational safety literature cited throughout the study. These concepts supported later stages of theme interpretation and helped maintain coherence between the study aims, research questions, and thematic findings.

This study is reported in accordance with the Standards for Reporting Qualitative Research (SRQR) (19). A completed SRQR checklist is provided as Supplementary Material 1. A completed COREQ checklist is provided as Supplementary Material 2.

2.4 Research team and reflexivity

Interviews were conducted by a female researcher with experience in occupational health and safety nursing and training in qualitative research methods with approximately eight years of professional experience in occupational health and safety nursing, and formal training in qualitative research methods. The interviewer was supported through supervision by senior researchers with extensive experience in qualitative occupational health research. Interviewers had prior professional exposure to occupational health contexts, but none were employed by or embedded within the participating organisations. Recruitment was facilitated through professional networks; however, interviewers had no direct supervisory, managerial, or contractual relationships with participants or sites.

Given that participants held managerial and supervisory roles, interviews were conducted with explicit attention to potential power dynamics inherent in workplace settings. Interviews took place off the production floor and emphasised confidentiality to encourage candid discussion of organisational strengths and limitations. Participants were reminded that there were no right or wrong answers and that critiques of PEA processes would not be shared with employers.

Reflexive practices were embedded throughout data collection and analysis. Field notes were recorded following each interview to document contextual observations, emerging assumptions, and reflections on interviewer–participant dynamics. Analytic memos were used during coding to interrogate how the researchers' professional backgrounds and assumptions about work ability, injury prevention, and organisational responsibility might influence interpretation. Particular attention was paid to distinguishing participants' perceptions of PEA effectiveness from evidence of actual injury causation or prevention. Throughout the analysis, researchers critically examined assumptions regarding the role of PEAs in workplace safety and considered alternative explanations related to organisational hazards, production demands, reporting cultures, and workplace systems.

Regular peer debriefing sessions were held within the research team to discuss coding decisions, challenge emerging interpretations, refine theme boundaries, and consider alternative explanations for participants' accounts. These discussions supported transparency, reflexivity, and analytic rigour throughout the thematic analysis process.

3. Results

3.1 Participant Characteristics

Fifteen organisational stakeholders were interviewed, comprising 10 men and five women, aged between 25 and 58 years. Participants included safety managers (n = 3), line supervisors (n = 4), and human resource or training officers (n = 8). Most participants (73%) had more than 10 years of experience in the meat processing industry, providing perspectives informed by substantial operational and organisational experience. Collectively, these participants represented a range of roles involved in the implementation, interpretation, and operationalisation of PEAs and early intervention processes across the participating facilities. These characteristics provided insights into organisational practices, communication processes, and exposure control activities relevant to the study aims (see Table 1).

Table 1

Role	Gender (n)	Age (range in years)	n (%)
Safety manager		30-55	3 (20)
Male	2		
Female	1		
Line supervisor		25-50	4 (27)
Male	3		
Female	1		
Human resource		28-58	8 (53)
Male	5		
Female	3		
Total		25-58	15 (100)
Male	10		
Female	5		

3.2 Themes

Analysis generated four themes: (1) ensuring physical capability and safety, (2) training, communication, and feedback, (3) workplace culture and morale, and (4) challenges and evolving needs. Each theme is examined in relation to the organisational exposure pathway (recognition → reporting → triage → task control) and the workplace processes perceived to influence these stages. Collectively, the themes illustrate how organisational stakeholders understand PEAs and early intervention to operate within broader workplace systems that influence hazard recognition, symptom reporting, triage, and task allocation. Participants perceived these processes as shaping communication, workplace culture,

accommodation practices, and support for work ability within a high-demand, culturally diverse production environment.

Theme 1: Ensuring physical capability and safety

Participants consistently described PEAs as a proactive process for assessing whether new hires could perform the physical demands of meat-processing roles. Stakeholders viewed PEAs as supporting job–task matching and informing placement, task allocation, and accommodation decisions aligned with workers' functional capabilities.

"It [PEAs] provides a good basis for employees to start their job within the workplace." (Safety officer).

*"It's helpful at the start, but it doesn't tell you everything. Someone can pass the assessment and still struggle once the pace and repetition kick in on the line." (*Line supervisor*).*

"By making sure that new hires are well suited for their roles, these assessments help create a workplace where staff feel confident in themselves and in their colleagues' abilities." (Supervisor).

Participants also described PEAs as useful for identifying existing health conditions or functional limitations that might require accommodation or task modification during onboarding.

"It reduces the chances of claims and injuries because you're hiring someone you know can handle the work." (HR officer).

Several participants acknowledged that PEAs provided only a partial understanding of a worker's capacity, particularly in production environments characterised by sustained repetition, high work pace, and changing task demands. Participants perceived that assessment information could support workforce readiness by facilitating earlier identification of support needs and informing job–task matching within a high-demand production environment.

Theme 2: Training, communication, and feedback

Participants emphasised that the value of PEAs depended on clear communication and adequate training to ensure that staff, supervisors, and assessors understood the purpose, process, and implications of assessment outcomes. Participants suggested that misunderstandings regarding assessment findings or workplace expectations could contribute to inconsistent implementation and delayed responses.

*"Training and communication is very important for ensuring compliance… it gives understanding to any risks and how to avoid them in a very mechanical environment." (*Manager).

Clear feedback loops between assessors, employers, and supervisors were also viewed as central to the use of PEA information.

"The communication back to the employer is just as important as the training. If the employer hasn't received information from the assessor, the whole system would fail." (HR officer).

Participants identified workforce language diversity as a particular challenge affecting both the delivery and interpretation of assessment outcomes.

"The variety of languages and adaptability of words and meanings make it difficult for us to evaluate effectiveness." (Supervisor).

"We sometimes get a report back, but it's too high-level. Supervisors are unsure what they're actually meant to change on the floor." (HR officer).

Participants perceived that communication barriers and unclear assessment feedback could delay hazard recognition, symptom reporting, and decisions regarding task modification or accommodation. Communication systems and feedback processes were viewed as important organisational mechanisms influencing whether concerns were identified and acted upon in a timely manner, particularly in relation to reporting, triage, and workplace adjustments.

Theme 3: Workplace culture and morale

Participants described PEAs as signalling an organisational commitment to health and safety, helping to establish expectations regarding workplace participation and shared responsibility for safe work practices. Many participants perceived that PEAs contributed to feelings of fairness and trust when implemented consistently and transparently.

"PEAs have supported a culture of safety by showing we prioritise health. From the start, they set expectations early, which builds confidence and morale among staff." (Manager).

Several participants believed that standardised assessment processes reinforced perceptions of equity by applying the same requirements across workers.

"People see that everyone is being checked to the same standard, so it feels like the company is serious about safety." (Line supervisor).

However, concerns were also raised regarding perceptions of bias and invasiveness. A minority of participants suggested that PEAs could be viewed as intrusive, particularly when workers perceived

assessment processes as primarily serving organisational interests rather than supporting employee wellbeing.

"A minority see the process as an invasion, that the practitioner works for the company, so the outcome feels biased." (Safety officer).

These contrasting perspectives suggest that the same assessment process may be experienced differently depending on levels of trust, transparency, and understanding of assessment purpose. Participants emphasised the importance of workers understanding how assessment information would be used, how identified needs would be accommodated, and the safeguards in place to protect confidentiality. Overall, stakeholders viewed the cultural impact of PEAs as dependent on implementation, with transparent communication, consistent application, and clear explanations of assessment purpose supporting acceptance, while perceived bias or lack of transparency had the potential to reduce trust and confidence in organisational processes.

Theme 4: Challenges and evolving needs

Participants acknowledged that although PEAs were viewed as valuable for supporting job placement and identifying accommodation needs, they may need to evolve to address the demands of an increasingly diverse workforce and changing production environments. Many participants suggested that physical-capacity assessments alone may not fully reflect the range of factors influencing safe participation and work ability in contemporary workplaces.

Several participants advocated for consideration of cognitive, behavioural, and learning-related factors to better support task allocation, training, and early accommodation processes. Participants emphasised that such considerations would ideally focus on job-relevant functional capacities, such as following instructions, adapting to task sequences, and learning safely within fast-paced environments, rather than diagnosing medical or psychological conditions or excluding individuals from employment.

"We probably could expand on areas that may help promote faster learning—like cognitive ability and aptitude tests." (Supervisor).

At the same time, participants recognised potential tensions associated with expanding assessment processes.

*"The more we add to the assessment, the harder it becomes to get people through the door. There's a real risk of delaying onboarding or excluding good workers." (*HR officer).

Health conditions and chronic illnesses were also discussed as factors that could complicate decisions regarding placement, accommodation, and ongoing work participation.

“A person might be perfect for a role, but a condition identified could make them a big cost to the business in the long run.” (HR officer).

The industry's cultural and linguistic diversity was viewed as an additional challenge, with participants highlighting the need for assessment processes that were both equitable and accessible to workers with varying levels of English proficiency.

“We have such a mixed workforce that it can be hard to make the assessments fair for everyone.” (Manager).

Participants also identified a tension between thorough assessment and operational efficiency, noting that lengthy processes could delay recruitment and onboarding.

“If the assessments take too long, you lose people to other jobs. It’s a balance.” (Safety officer).

Participants highlighted the importance of culturally responsive communication, accessible assessment materials, interpreter support, clear feedback mechanisms, and appropriate accommodation pathways. They also emphasised the need for workers to understand the purpose of assessments, how information would be used, and the supports available when accommodation needs were identified.

4. Discussion

Thematic analysis identified four overarching themes: (1) ensuring physical capability and safety, (2) training, communication, and feedback, (3) workplace culture and morale, and (4) challenges and evolving needs. Together, these themes provide insight into how organisational stakeholders perceive PEAs and early intervention as components of broader workplace systems that influence task allocation, reporting, accommodation, and workplace participation. Participants described communication quality, culturally responsive implementation, and supervisory follow-through as important influences on how assessment information was interpreted and translated into workplace practice.

Many perceived that timely communication, clear role expectations, and effective feedback mechanisms supported workplace decision-making, whereas language barriers, unclear assessment outcomes, and concerns about assessment purpose could hinder implementation.

Participants also suggested that physical-capacity testing alone may be insufficient for contemporary production environments. Cognitive, behavioural, and learning-related factors were viewed as potentially relevant to task allocation, training, and accommodation decisions, particularly for workers with chronic health conditions or additional support needs. These perspectives highlight the importance of transparent, equitable, and culturally responsive assessment practices.

Importantly, these findings should not be interpreted as suggesting that PEAs address the primary causes of injury within meat-processing environments. Consistent with existing evidence, injury risk is driven largely by production pressures, repetitive and forceful work, hazardous equipment, environmental exposures, and broader organisational conditions (20–22). PEAs are therefore best understood as secondary organisational controls that may support placement, accommodation, reporting, and triage processes, but cannot substitute for hazard elimination, engineering controls, ergonomic redesign, workload management, or broader workplace safety improvements (20–23).

Theme 1: Ensuring physical capability and safety

Participants consistently described PEAs as a mechanism for assessing whether workers could meet the physical demands of meat-processing roles and for identifying potential accommodation needs. Stakeholders perceived that assessment results informed placement decisions, onboarding processes, task allocation, and support for workers with restrictions. These perceptions are broadly consistent with literature suggesting that functional capacity evaluations and PEAs may assist job placement and occupational rehabilitation when aligned with job demands (3, 10, 11). The present study extends this literature by illustrating how organisational stakeholders interpret and operationalise assessment information within workplace systems (12, 24).

Theme 2: Training, communication, and feedback

Communication emerged as a central influence on PEA implementation. Participants emphasised that assessment information was most useful when supported by clear explanations, timely feedback, and consistent communication between assessors, supervisors, and workers. These findings align with occupational safety research highlighting the importance of communication systems, feedback mechanisms, and organisational learning processes in workplace health and safety initiatives (25, 26).

Participants also identified language and cultural diversity as important implementation considerations. These findings have implications for health equity, as workers from CALD backgrounds may experience additional barriers to understanding assessment processes, communicating health concerns, and accessing workplace supports. Culturally responsive communication strategies, accessible information, and appropriate support mechanisms may therefore play an important role in ensuring equitable participation in workplace health and safety processes.

Theme 3: Workplace culture and morale

Participants perceived that PEAs signalled an organisational commitment to health and safety and could contribute to trust, confidence, and employee morale. However, these outcomes were viewed as dependent on implementation quality. Transparency, fairness, confidentiality, and clear communication were identified as key influences on workers' acceptance of assessment processes. Conversely, assessments could undermine trust when perceived as intrusive, employer-focused, or lacking transparency. Consistent with previous research, these findings suggest that organisational trust and

perceptions of fairness play an important role in worker engagement with workplace health and safety initiatives

(27, 28).

Theme 4: Challenges and evolving needs

Participants emphasised that PEAs may need to evolve to address changing workplace demands and increasingly diverse workforces. Several recommended incorporating cognitive, behavioural, and learning-related considerations alongside physical capacity measures. These perspectives are consistent with research suggesting that workplace participation is influenced by physical, cognitive, behavioural, and psychosocial factors (29, 30). Participants also highlighted practical challenges associated with workforce diversity, communication barriers, and balancing comprehensive assessment processes with operational requirements. From their perspective, culturally responsive communication, accessible assessment materials, effective feedback processes, and appropriate accommodation pathways were important for ensuring future assessment approaches remain equitable, inclusive, and adaptable to changing organisational contexts.

Collectively, these findings contribute a mechanism-focused understanding of how organisational stakeholders perceive PEAs and early intervention to influence reporting, accommodation, task allocation, work ability, and workforce participation within high-demand production environments. By examining these processes within a high-risk and culturally diverse industry, the study extends existing quantitative evidence and highlights organisational factors that may influence disability prevention and occupational health outcomes.

Beyond workplace injury prevention, these findings have broader public health relevance. Work ability is increasingly recognised as a determinant of workforce participation, health equity, and disability prevention. Participants described organisational processes that may influence early reporting, accommodation, and work participation, particularly within culturally and linguistically diverse workforces. Strengthening communication, culturally responsive practices, and accommodation pathways may help reduce barriers to workplace participation and support sustainable employment among workers at risk of work disability. In this way, PEAs may contribute to broader public health goals relating to healthy work, workforce inclusion, and the prevention of long-term work disability.

Participants also identified tensions between comprehensive assessment and workforce inclusion. While stakeholders viewed assessments as useful for identifying accommodation needs, concerns were raised that increasingly complex screening processes could inadvertently delay recruitment or contribute to exclusion of workers with health conditions or disabilities. These concerns reinforce the importance of ensuring that assessment processes are used to facilitate accommodation and participation rather than functioning as mechanisms of workforce exclusion.

5. Limitations

While this study provides valuable insights into organisational stakeholders' perceptions of PEAs and early intervention within the Australian meat-processing industry, several limitations should be acknowledged. First, the findings are not intended to be statistically generalisable to the broader industry. The study focused exclusively on the perspectives of managers, supervisors, and safety personnel and did not include frontline workers or other employee groups whose experiences and perceptions may differ. Consequently, the findings primarily reflect organisational perspectives on PEA implementation rather than worker experiences of assessment, reporting, or accommodation processes.

Previous research in meat-processing settings has identified additional influences on reporting behaviour, including fear of retaliation, concerns regarding job security, production pressures, and limited trust in workplace health systems (20–23). These factors were not strongly represented in the present managerial sample and may reflect experiences that are more readily identified by frontline workers than organisational stakeholders. Future research should incorporate worker perspectives to develop a more comprehensive understanding of how organisational, cultural, and structural factors influence reporting and early intervention processes.

In addition, the study was conducted across two facilities and may not capture the full range of organisational practices and experiences present across different regions, production systems, or workforce compositions. Although the dataset was considered sufficient to address the research questions, alternative interpretations may have emerged through engagement with additional participants, organisations, or stakeholder groups.

Finally, the cross-sectional design captured participant perceptions at a single point in time and does not permit conclusions regarding the effectiveness of PEAs in reducing injuries, improving reporting behaviours, or influencing long-term work-ability outcomes. Future longitudinal and mixed-methods research is needed to examine how organisational practices associated with PEAs and early intervention influence workplace processes and outcomes over time.

6. Recommendations

Based on the findings, several recommendations may assist organisations seeking to strengthen the implementation of PEAs and early intervention processes in high-demand production environments.

1. Integrate PEAs within broader organisational safety systems
PEAs should be embedded within organisational processes that support hazard recognition, reporting, triage, accommodation, and task allocation. Assessment processes should complement primary prevention strategies such as ergonomic redesign, engineering controls, workload management, and hazard reduction initiatives.

2. Strengthen communication and feedback processes
Assessment outcomes should be communicated clearly and promptly to workers, supervisors, and

relevant health personnel. Feedback should include practical guidance regarding accommodations and workplace adjustments.

3. Promote culturally and linguistically responsive practices
Assessment processes should be accessible to workers from diverse cultural and linguistic backgrounds through translated materials, interpreters, visual aids, and other supportive communication strategies.

4. Support supervisors in implementing assessment outcomes
Supervisors should be trained to interpret assessment recommendations, support early reporting and accommodation, implement task modifications, and maintain psychologically safe communication.

5. Ensure assessment processes support inclusion and accommodation
PEAs should promote workforce participation rather than exclusion. Where limitations are identified, organisations should prioritise reasonable accommodations, task modification, and workplace supports wherever feasible.

6. Further research should incorporate worker perspectives
Future research should include worker perspectives and longitudinal designs to better understand how PEAs operate within workplace systems and influence workplace participation.

7. Conclusion

This study provides insight into how organisational stakeholders perceive the role of pre-employment assessments (PEAs) and early intervention within workplace systems in the Australian meat-processing industry. Participants viewed PEAs not only as tools for assessing functional capacity, but also as organisational processes that influence communication, reporting, accommodation, and task-allocation practices within high-demand production environments.

Stakeholders perceived that the value of PEAs depended on clear communication, culturally responsive implementation, timely feedback, and effective supervisory follow-through. When integrated within broader organisational systems for reporting, accommodation, and early intervention, PEAs were viewed as supporting work ability, workplace participation, and workforce inclusion.

Importantly, these findings should not be interpreted as suggesting that PEAs address the primary causes of injury in meat-processing environments. Rather, participants viewed PEAs as secondary organisational controls that may support placement decisions, accommodation planning, reporting, and early intervention processes alongside hazard elimination, ergonomic redesign, engineering controls, workload management, and other primary injury-prevention strategies.

Collectively, the findings contribute a mechanism-focused understanding of how organisational stakeholders perceive PEAs and early intervention to influence the exposure pathway from hazard recognition to reporting, triage, and task control. Beyond workplace injury prevention, the findings

highlight the potential public health relevance of organisational systems that support work ability, workforce participation, and equitable access to workplace support, particularly within culturally and linguistically diverse workforces.

Overall, PEAs may be most valuable when embedded within organisational systems that prioritise hazard control, effective communication, timely accommodation, psychological safety, and workforce inclusion. Future research incorporating worker perspectives and longitudinal evaluation is needed to better understand how these processes operate across diverse workplace settings and their implications for work ability, workforce participation, disability prevention, and health equity.

Declarations

Ethics Approval and Consent to Participate

This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the **University of Newcastle Human Research Ethics Committee (HREC)** (Approval No. **H-2024-0321**).

All participants received a Plain Language Statement and provided both verbal and written informed consent prior to participation in the study.

Human Ethics and Consent to Participate

Ethical approval was granted by the University of Newcastle Human Research Ethics Committee (HREC) (Approval No. H-2024-0321). Informed verbal and written consent was obtained from all participants before participation.

Consent for Publication

No identifiable participant data are included in this manuscript. Individual consent for publication was therefore not required.

Availability of Data and Materials

The qualitative datasets generated and/or analysed during the current study are not publicly available due to participant confidentiality and ethical restrictions but may be available from the corresponding author on reasonable request and subject to institutional approval.

Competing Interests

The authors declare that they have no competing interests.

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Authors' Contributions

BR conceived the study, developed the methodology, undertook data collection and analysis, and prepared the original manuscript draft.

JR provided industry contextual expertise and contributed to manuscript review and editing.

AH provided methodological guidance, qualitative research oversight, and contributed to manuscript review and editing.

MS contributed to manuscript review and editing.

BR undertook manual checking of all references and verified the accuracy and authenticity of all cited sources.

All authors read and approved the final manuscript and agree to be accountable for all aspects of the work.

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Generative AI Disclosure

Microsoft Copilot was used to assist with language refinement and formatting of the manuscript. All generated content was reviewed, edited, verified, and approved by the authors, who take full responsibility for the final content of the manuscript.

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